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ORIGINAL DEPARTMENT.

LECTURE.

ANTISEPTIC SURGERY.

ADDRESS DELIVERED AT THE YEARLY MEETING OF THE SCHUYLKILL COUNTY MEDICAL SOCIETY BY THE RETIRING PRESIDENT,

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Mr. President, Members of the Society, Gentlemen: It is the time-honored custom for the retiring president to read an address on a subject connected with medicine. As I have and intend to make surgery a specialty, it becomes me to speak of this noble branch of our science and art. Immense progress has been made in every direction, operations are to-day performed of which our forefathers scarcely dreamed, and human life is now frequently saved, where our ancestors were satisfied with insuring euthanasia to the sufferer. But, if we look at the causes which thus advanced surgery, one factor, the discovery of one man seems especially to have made this progress possible. It is to antiseptic surgery, or Listerism, as it is called after him who first introduded it, we owe most of our advancement. Since its employment, the once dreaded peritoneum has ceased to be feared; the cavity of the knee-joint is no longer the "noli me tangere" (don't touch me), and the mortality rate shows fewer and fewer cases where death sets in from exhausting suppuration.

But if antiseptic surgery can produce such results, why is it, you may justly ask me, that at least in this country it is, comparatively speaking, but rarely employed? First, let me tell you that the same remark concerning England and the continent of Europe cannot be truthfully made. Nearly all of the most celebrated surgeons of our age in Europe practice Listerism, more or less modified; and even in our country certain operations, especially those in which death from prolonged suppuration, pyæmia, or septicæmia is mostly to be feared, are no longer performed without antiseptic precautions.

There are probably three causes which, united, have prevented many American surgeons from adopting Listerism and strictly adhering to the rules of aseptic surgery. First, all those factors which mainly give rise to sepsis are less to be feared in this country than in Europe. The people in general here are better nourished, and we seldom see such degraded, and impoverished, and badly-fed individuals as represent the type of the poorest classes in Europe. With us, as a general rule, people are cleaner, and the miserable and filthy hovels that are too often the abode of the poor laborer in Europe, are here but rarely met with.

A second cause of our neglect of Listerism may be found in the fact that the details of it are but imperfectly known; and the third cause is explained by the difficulty with which all the minutiæ of aseptic surgery are performed. Certain bandages and apparatus essential to the strict execution of real Listerism, have to be manufactured wholesale to be at the disposal of the surgeon. This want, however, has of late been supplied, and most wholesale druggists, or the instrument-makers of our large cities, keep continually on hand all the paraphernalia needed for the faithful compliance with aseptic surgery. The difficulty of its execution only, therefore, remains,

and I hope to convince you that this should be no objection to the adoption of Listerism in hospital as well as in private practice. If a surgeon has practiced strict antiseptic surgery but a few times, he will discover that it is connected with very little trouble; and if you consider that the first antiseptic bandage applied in a case may often be left for weeks undisturbed, you will agree with me that strict Listerism does not increase the labors of the surgeon, but indeed decidedly diminishes them.

As all the necessary appliances can, therefore, be procured, it is easy to become an expert in aseptic surgery, and as it relieves the surgeon from a great deal of superfluous labor, every operation ought to be performed according to the rules of Listerism, and considering the fact that it immensely enhances the chances of recovery in many cases its adoption ought to be obligatory, and the death of any case, if it could have been prevented by perfect asepsis, should be justly ascribed to the criminal negligence of the surgeon.

To do my share in spreading the knowledge of antiseptic surgery, is the object of this paper, and I was determined the more to discuss it as my position as surgeon of the State Hospital for Injured Persons of the Anthracite Coal Region of Pennsylvania, gives me the opportunity of showing to you its practical working.

At the boundary between the animal and vegetable kingdom, there is an immense class of microscopical beings, and to-day it is still doubtful whether they are animals or plants, though the majority of investigators seem to incline to the belief that they belong to the vegetable kingdom. Nevertheless, they are known by the name of animalculæ. They form two large subdivisions: hyphomyceti and schizomyceti. They are distinguished from each other mainly by their mode of propagation, the first so-called fungi or moulds multiplying by the aid of spores, while the second do so by division. The first give rise to diseases of the skin and mucous membrane, as favus, aphthæ, etc., but those of the second class which are pathogenic in their nature, make their ravages within the body.

These last have received the generic term of bacteria, on account of their rod-like shape. Many of these are peculiarly formed, and this difference in their shape has given rise to a classification which divides them into micrococci, having a circular shape; bacilli, short or long rods; bacteria proper, shortest rods; vibriones, wavy shape; spirilli, short stiff screws; and spirochætæ, long flexible screws.

How rapidly they multiply when brought into favorable surroundings, you may judge from the following statement, taken from an article of Prof. Engel's in the MEDICAL AND SURGICAL REPORTER. "Of one single bacterium, which during the first hour has divided into two, these during the next in 4, and within 3 hours in 8, after 24 hours have already become 16½ millions, after 2 days 28½ billions, and after 3 days 47 trillions. If in this manner the development could go on unimpeded, the breed of bacteria springing from one germ of about $\frac{1}{500}$ mm. in length and $\frac{1}{1000}$ mm. in thickness, within less than five days would completely fill all the oceans of the earth; and the descendants of one single micrococcus, whose weight is so little that 1600 millions of them weigh but one grain, would within three days reach the enormous weight of 15 millions pounds."

Scientific researches have proven beyond a doubt that certain species of bacteria are the pathogenic element of infectious diseases. While all authors do not agree that the bacteria are the original cause of some of these maladies, the following facts are undisputed. No putrefaction, no decay, would take place after death were it not for septic bacteria. Then, there are many chemical processes which are produced and kept going solely by these microbes. The change of sugar into alcohol and carbonic acid, the so-called alcohol fermentation, is due to the activity of the yeast plant. And when fermented fluids become acid, the change of their alcohol into vinegar is caused by a bacterium. When milk gets sour it is induced by a rod-shaped bacterium, while the green and blue color of pus must be ascribed to another variety, and the discoloration observed on potatoes, cheese, boiled eggs, etc., in moist air is brought about by a micrococcus. It is not my intention to enter into a detailed description of these bacteria, which give rise to acute or chronic infectious diseases, as typhoid fever, etc., but I will at once mention the discovery of the pathogenic elements of that great group of septico-pyæmic diseases. Klebs has proven that micrococci cause the septic cysto-pyelonephritis; Rindfleisch and others have demonstrated and cultured those causing septicæmia and pyæmia; Lucke and Koohn, those inducing osteomyelitis, and Nepven, Oeth, Billroth, etc., those of erysipelas. The cause of septic endo-carditis, so long puzzling physicians, has been shown to be due to micrococci colonies.

These septic bacteria develop only under certain conditions—in the healthy being they cannot propagate. They abide in parts of the organism

which have lost most of their vitality, or have become mortified, and in which these microbes cause putrid decomposition, whose products, if absorbed and carried into the blood act as poisons upon the system.

Possessing the knowledge of these facts, Prof. Lister, in Edinburgh, conceived the happy idea to prevent completely the entrance of septic bacteria into wounds. He correctly reasoned as follows: If no decay, no putrefaction, no formation of pus, no septic process of whatever kind, can take place in a wound without the presence of bacteria, all that is necessary to insure the absence of such processes, was the exclusion of the bacteria. The next question was, Whence did the microbes come? They are contained in the atmosphere. Either the air must be completely excluded from a wound or be made aseptic. That the air really was the carrier of these pathogenic bacteria has not only long since been proven by experimental research; but surgical experience has also clearly demonstrated the correctness of this view. It is a well-known fact if we cut the integument and tendon with a knife, that the chances of complete recovery are not very good, besides the risk, that intense suppuration accompanies the cure. But if a tendon is divided subcutaneously, so that air cannot enter, the wound heals kindly, with great rapidity, and without the formation of pus. Formerly, the use of a trocar in thoracentesis for pleuritic effusion generally changed at once the serous extravasation into empyema; since the introduction of the aspirator needle this occurrence is not quite so frequent. Further, encephalitis following an injury to the skull, even if a splinter of the diploe pierce the tissue of the brain, is not apt to end in abscess, but if there is a breach of continuity in the skin and bony covering of the skull, so that the air has free admittance to the inflamed focus, an abscess is almost sure to follow.

These and other undeniable proofs demonstrated beyond a doubt the fact of the air being the carrier of the pathogenic bacteria. The air had, therefore, to be excluded from a wound. But while this might, perhaps, be done after an operation is over, the difficulty was to prevent admittance of the air while the operation is in progress. That could not be achieved; the next best thing, therefore, had to be done, namely, to make the air aseptic. And to insure the complete exclusion of all bacteria, everything coming in contact with the wound had also to be disinfected, as, for instance, the hands, instruments, sponges, needles, thread, ligatures, bandage, and so on. In this manner, Lister reasoned and at once commenced his method of procedure, which has made his name immortal, and the prognosis of many a case more favorable than it would otherwise have been.

To make the details clearer, let us follow Prof. Lister in his performance of an amputation. By the aid of an atomizer, containing a six or eight per cent. carbolic acid solution, the air of the room in which the operation is to be performed is kept aseptic. This spray is kept going during the whole time occupied, namely, until the wound has been securely closed by the proper bandage. Then the instruments, sponges, and needles are brought in, all lying in a four per cent. solution of carbolic acid. Then the skin all around the part where the operation is to be performed is made completely aseptic by a ten per cent. carbolic acid solution.

With his disinfected hands, the operator now grasps the knife, takes it out of the aseptic fluid and while the carbolic acid spray passes over the parts, he makes the first incision. When the soft parts have been divided—the spray continuing to play over the wound—the saw is taken out of the aseptic fluid, and the bone, with the periosteum turned back, severed. By the aid of a thoroughly-disinfected tenaculum or forceps each artery is then grasped and a catgut ligature, which up to that time had also been kept in the disinfecting fluid, is applied to the vessel. When finally, each artery has been secured in the same manner; and while the spray still passes over the wound, the flaps are coaptated as perfectly as possible, and after that the sutures applied, disinfected needles and aseptic catgut serving for this purpose. To prevent an accumulation of discharges of the wound, and through it a separation of the well-coaptated flaps, a thoroughly-disinfected drainage-tube is inserted between the flaps at the lowest depending point to allow a free exit to any discharge. Then the parts are cleansed by the aid of aseptic sponges and a mild carbolic acid solution. Over the whole is applied the protective, generally a pliable piece of aseptic caoutchouc, and then a gauze bandage saturated with an eight per cent. carbolic acid solution, and the stump encircled by it, taking care not to compress the drainage-tube. A common disinfected bandage surrounds the whole.

Though there are sometimes more details followed in the application of Lister's dressing, the one described is that now generally adopted. But no matter what kind of bandage and how applied, the following principles, which are so masterly

explained in Nancrede's papers* must be observed.

First there must be no admittance of septic air to the wound, while the operation is progressing. This is prevented by the spray; but as the spray has been used previous to the operation, and as the skin near to the seat of operation had been disinfected, the spray need not touch the wound, as it otherwise would act as an irritant. For the same reason, the protective is applied to prevent direct contact of the acid with the healthy, fresh wound.

The next important principle is the perfect coaptation, but the stitches must cause no tension, and there must be room for the discharges to escape; for as Lister himself says, one single tense stitch may cause suppuration, though no malignant pus.

The drainage must be perfect, for the only agent likely to disturb the position of the flaps is an accumulation of the secretions. The fluid pouring out from a fresh wound is very prone to putrefy, and it should have, therefore, free egress.

Perfect disinfection is of paramount importance, for what good would all other precautions do if we do not exclude septic material? But remember, for this end the contact of the disinfectant with the wound is not needed, but rather harmful. If the operation is proceeded with as described, no septic substance can have touched the fresh wound-surfaces. After their perfect coaptation, therefore, it is only necessary to surround it with substances which prevent the passage of bacteria through them. This is done by the carbolized gauze and bandages, and the protective caoutchouc simply prevents the contact of the carbolic acid with the wound.

Finally, promotion of granulation is the last indication. By performing the other details, the parts have only to be kept at complete rest, and granulations will spring up. They do so from 48 to 72 hours after, and Von Brun follows Lister's method only thus far. As soon as granulations have well formed, he removes the bandages and treats the wound by the so-called open method. It is well known that granulation prevents the absorption of septic matter; the danger of this for any wound ceases with the appearance of granulations.

*Chas. B. Nancrede. An Analysis of the Principles upon which Depend the Modern Methods of Treating Wounds. Reprint from Archives of Medicine, June, 1881. New York, G. P. Putman's Sons; and idem, Some of the Facts of Listerism, ibidem, August, 1882.

Von Brun has reported some very favorable results from his method, but not so favorable as Lister and Volkmann, the latter following strictly Lister's method. Lister allows the bandage to stay untouched as long as the odor from the wound is sweet, or no morbid symptom, as chills and increase of temperature, indicate the entrance of septic material or the accumulation of pus in the wound. If no untoward symptoms occur, the dressing is permitted to remain until the healing of the wound, and Lister is of the opinion that this method can always be followed, and the same result will be obtained if none of the important principles of his dressing were omitted; or, in other words, if no loop-hole was left open for the entrance of septic matter, if coaptation was perfect, drainage unimpeded, and no irritant was left in the wound.

To show you some of the results of perfect aseptic surgery, let me give you some figures of Volkmann's clinic.* His wards were in such an unsanitary condition that he was at the point of demanding their closure. In the winter of 1872 and '74 he tried to save 16 comparatively simple cases of compound fracture, and 12 died rapidly of pyæmia. From 1873 to 1877 he tried Listerism in 75 complicated fractures, 73 of whom recovered.

Mr. J. Wood, of England, says: "A few years ago I believed that I had never seen a patient recover after the opening of a lumbar or psoas abscess with a free incision. I could not remember one who had not died before the opened abscess healed. Of late years I have known such abscesses opened with complete impunity under antiseptic treatment, and it seems there is nothing but this treatment to account for the difference of results."

Bruns, Berdeleleen, and Billroth performed 377 amputations by the old method, with a mortality of 29.18 per cent., while of 321 amputations performed by Busch, Schede, Socin, and Volkmann by the aseptic method, only 4.4 per cent. died.

Mr. Lister has frequently opened joints affected with hydrarthosis impending suppuration, joint abscesses, etc., in all, 109 cases, with but three deaths, all from tubercular meningitis. Volkmann gives thirty-one wounds of joints and two incisions into joints, thirty-three in all, of knee, wrist, elbow, and foot, with no death, and twenty-one compound fractures entering joints treated aseptically, with no death.

It would occupy too much time to augment

*Nancrede, ibidem.

these statistics. Those who wish more information regarding them, I would refer to the excellent treatise of Nancrede, above mentioned.

The results obtained by the aseptic method are such as to surprise every surgeon. When the opportunity is thus given to us to protect almost certainly the patient against pyæmia and septicæmia, it is my opinion that we are willfully negligent by not employing the only procedure promising success.

One great surgeon after another adopts Listerism, and whoever has once tried the method is sure to continue it. Once accustomed to it, it becomes easy of execution, and in consequence of the almost utter want of local after-treatment greatly facilitates the labors of the surgeon.

Let me hope, fellow-members of the Schuylkill County Medical Society, that I have succeeded in contributing my mite to make aseptic surgery popular with you. For your own interest, and still more for that of suffering humanity, let me pray you to adopt a method which, being based upon scientific principles and well-established truths, makes out of every wound, no matter of what part of the body, a subcutaneous one. By its aid we will drive such diseases as hospital gangrene, erysipelas, pyæmia, and septicæmia forever from the wards of our hospitals, and we will be able to guarantee to every patient a freedom from those special dangers which were the cause of the high mortality so often observed in these institutions.

COMMUNICATIONS.

LACERATION OF THE RECTUM, BLADDER, AND PERITONEUM, BY A FOREIGN BODY THROUGH THE ANUS.

BY TOM. M. THROCKMORTON, M. D.,
Of Derby, Iowa.

Every surgeon has experienced grave results following the slightest injury, also he has observed perfect recovery from what appeared a serious if not fatal injury. For instance, a man is thrown from a horse, falling upon his head: he gets up immediately, feels sick at his stomach, vomits, and in a few moments feels all right; rides home, goes about his usual vocation, experiencing nothing unusual. In a few days—perhaps a week—after over-eating or exertion, he takes a severe headache, etc., convulsions, and dies. Again, a man is thrown out of his wagon, the wheel passing over his head, fracturing his skull and frightfully mangling his body: he recovers. I wish to give the notes of a case that came under my observation where it did not look possible that the man could survive—the character of the injury, the kind of instrument, and way the force was applied, the parts and organs complicated, all indicated an unfavorable prognosis.

August 9, 1884. Jas. Kelley, æt. 22, single, Irish descent, while engaged in running a threshing machine, jumped off the separator on to a manure or dung-fork which was sticking into the ground, the handle passing into the anus and up into the abdominal cavity fourteen to sixteen inches, as estimated by the bystanders, who are intelligent men, especially the gentleman who pulled the fork out, who is a man of *close* observation and marked intelligence—his estimate (by measuring) being that the handle *passed fully fifteen inches* up the bowel; he said "the handle showed the depth as plainly as if he had tried to measure the depth of water in a rain-barrel," the pants being woolen, without lining and *well* worn. The handle was 51 inches long, $4\frac{1}{2}$ inches in circumference around the top, which was smooth and rounding, middle $3\frac{3}{8}$ inches.

On my arrival found patient in the barn lying on a pallet of straw, countenance blanched, and of a ghastly pallor, suffering intense griping, colicky pains, retching, restless, thirsty, feeble pulse, extremities cold, had passed large quantity of blood per rectum. Gave morphia, brandy, and quinine. Made a bed in a spring wagon, and took him to his home about $1\frac{1}{2}$ miles distant.

A digital examination per rectum disclosed on the anterior part of the gut a longitudinal rent or laceration about two inches in length, and near three inches above the verge of the anus.

My friend, Dr. C. Fitch, of Chariton, having over thirty-five years' experience in surgery, was called in consultation; and upon his arrival, about seven or eight hours after the injury, the patient had reacted and was resting quite comfortably.

Passed catheter and drew about eight or ten ounces of turbid or bloody urine. Patient was then placed in lithotomy position, after being anæsthetized by my brother, Dr. C. M. Throckmorton. We had a variety of anal specula and dilators; these failing, we contemplated the division of the sphincter ani. However, Dr. Fitch, with Sims' duck-bill vaginal speculum and volsella forceps, succeeded in bringing down the bowel sufficiently, and I closed the rent with two interrupted sutures of silk. Bowels syringed out, and patient put to

bed. Then remembering the words which I heard fall from the lips of our lamented, venerable, and learned Prof. Gross: "Gentlemen, *in peritonitis, put the bowels in a splint, and do it with opium.*" I gave morphia sulph. in gr. ss. to gr. j. doses to relieve pain, tranquillize the system, and to prevent the peristaltic action of the bowels; relaxing the abdominal muscles by raising the shoulders and placing pillows behind the knees. The entire abdomen was covered with cloths wrung out of hot water, medicated with plumbi acetas and tr. opii, and these again covered with dry ones, changing every fifteen to twenty minutes. All solid articles of food carefully avoided—beef essence, animal broths, slops, milk, etc., being the entire diet.

August 10 (second day), 7 a. m. Temperature, 101½° (in axilla); pulse, 104. Vomited about one pint of bilious or greenish matter. Passed catheter and drew only a few drops of bloody urine. 7 p. m., pulse, 108; temperature, 102°. Bloody fluid having a decidedly urinous odor passing from anus every time patient moved or turned. Inserted soft, flexible catheter, and retained it in position.

August 11 (third day), 9 a. m. Pulse 96, temperature 102⅛°. A good night's rest, took nourishment, milk, lime-water, beef tea, etc. Urine more clear, flowing from catheter, also some per rectum. Eyes jaundiced. Tongue coated with brownish fur. Bowels tympanitic and tender on pressure. Changed to dry bed, withdrew catheter, cleaned and returned it. Washed nates and genitals with carbolized water, keeping up the hot applications and opiates. 9 p. m., temperature 102¾°, pulse, 100.

August 12 (fourth day) 10 a. m. Pulse 90, temperature 100¾°. Urine more clear, and not so free from rectum. Irritation of urethra, but not so much tenderness over bowels. 8 p. m., pulse 98, temperature 102°.

August 13 (fifth day), 10 a. m. Pulse 88, temperature 99½°. Rested well, sweat, slight headache. Some desire to have bowels moved. Gave opium instead of morphia. Gas passing through catheter having a decided fæcal odor. 3. p. m., pulse 100, temperature 101¾°.

August 14 (sixth day). Flighty through night. Not so much urine passing per rectum. Catheter left out on account of urethritis. Temperature 98°, pulse 78.

August 15 (seventh day) 10 a. m. Temperature 100¼°, pulse 75.

August 16 (eighth day), 7 a. m. Temperature 98⅗°, pulse 68; 8 p. m., temperature 100⅗°, pulse 76.

This carries us over the first week with this interesting case, and to give every detail would take too much space and time; suffice it to say, on August 20 (twelfth day), on withdrawing the catheter the eyelet was filled with fæcal matter, and upon examination digitally the sutures had come away, the rent had closed so as not to admit the index finger, and feeling not unlike the os uteri.

August 21 (thirteenth day). Pulse 80, temperature 101⅗°. Bowels moved for the first time, assisted with enema and scoop, patient having a desire to strain and bear down, passing per urethra considerable fæcal matter in form of small lumps—grains of green corn—after which I washed out the bladder with tepid carbolized water by means of inserting a small pipe of a Mattson syringe into a soft catheter. Did this frequently during the entire treatment, and sometimes the water would flow back, looking like an alvine discharge. Also kept the bowels well cleansed.

August 27 (nineteenth day). Bowels moved again—the second time since injury—several large stools. Passed fæces per urethra as before. From this time on kept the bowels in a soluble condition, sustaining patient on liquid diet, and such articles as would produce as little fœcal matter as possible. At the end of nine weeks patient passed some urine per rectum, compelling him to take down his pants to urinate; but by voiding his urine several times in the twenty-four hours, keeping his bladder empty, *a perfect cure was accomplished*, the tract healing up by granulation.

Were I to treat the case again, I would do just as I did, with the exception that I would try to put in more sutures. However, we were not certain as to the extent of injury, and thought it proper to leave ample room for drainage; nor were we certain just what part, or to what extent the bladder was injured, as the patient had not voided his urine for several hours prior to the injury, and falling forward at that time, the handle may have ruptured the viscus by pressing it against the symphysis pubis, or what is more probable, it entered the bladder below the recto-vesical fold and passed out at the summit—for I do not think the bladder could have risen high enough to have permitted the impalement of the body to the depth of fifteen inches without laceration.

During the treatment of this case I was at times hopeful; again, it appeared my man could not recover; but in the language of my friend, Dr. O. H. Allis, of Philadelphia, "Do all you can

—then leave the rest with an all-wise Providence." In so doing, I felt *I had done but little* "in doing all I could," and that an all-wise One *did* do the rest.

ON THE USE OF ANÆSTHETICS IN MIDWIFERY.*

BY J. B. CORY, M. D.,
Of Denver, Colorado.

Natural labor is a physiological process. The most successful obstetricians are they who do not interfere with the natural forces, unless they are hindered or obstructed by an abnormal condition of the nervous or circulatory systems, a malposition of the fœtus, abnormal growths, or deformities.

To watch and wait, is sometimes greater evidence of skill than a brilliant operation.

"Meddlesome midwifery is bad," is a saying we have often heard, but, perhaps, have not sufficiently considered.

Frequent examinations during the first stage of labor, pulling and stretching the os uteri to hasten the dilatation, premature rupture of the membranes, the use of ergot before dilatation is fully accomplished to increase the force of the uterine contractions, frequent injection of antiseptic solutions to destroy imaginary germs, the use of the forceps to save time, and the use of anæsthetics to such an extent as to retard labor, are some of the evils of the lying-in room that we ought to guard against.

I would not be understood as detracting in the least from the important duties of the accoucheur. With just as much reason might a ship start upon a voyage without a helmsman at the wheel, as may a woman enter upon the labor of childbirth without a trained and experienced assistant. As the helmsman may set his ship upon its course and rest at ease during the calm or when the wind is favorable and constant, so may the accoucheur sit idly by as labor progresses easily and safely. But as the helmsman must be ever vigilant, with his eye upon the compass, or scanning the horizon to anticipate the coming storm, so must the accoucheur be ever watchful for the least deviation from the natural course of labor, and ready at a moment's notice to give assistance as it may be required. It is his business to "look out for breakers" that indicate approaching danger, and with skill and judgment guide the patient through the trying ordeal.

Among the various means for accomplishing this result, is the use of anæsthetics. And one of the important things for him to know, is when and how to use them. Of the anæsthetics that may be used, I give the preference to chloroform, pure and unadulterated, because it acts more rapidly, and with less excitement than the others. The only objection that can be urged against it is its want of safety. But the experience of forty years has demonstrated that when properly used in a case of labor, it is devoid of danger—for the reason that it is never necessary to produce complete unconsciousness, except in cases requiring operative procedures, and because the efforts of nature in a case of labor tend to fill and make turgid the vessels of the brain, and thus counteract the dangerous action of chloroform.

I am not an advocate of the indiscriminate use of anæsthetics in midwifery. There are many cases in which, to say the least, they are not required, and others in which their use would be detrimental.

Many women will suffer but little during the first stage of labor; will perhaps walk about and chat and laugh in the interval between the pains, and in the second stage are cheerful and hopeful in anticipation of soon holding in their arms the little stranger for which they have been so long waiting. In cases that pursue so favorable a course as this, why should we blunt the senses and obtund the intellect, and take the risk of possible accident and censure, by giving chloroform? But we sometimes, indeed quite frequently, meet with cases that are not so free from embarrassing complications. The os uteri may be rigid, and not disposed to dilate freely and easily. The constantly recurring pains, which to the patient seem to be doing no good, bring about a condition of hyperæsthesia and nervous irritability that harasses the patient beyond endurance.

In such cases the anæsthetic is invaluable, and should always be used. A few inhalations from a handkerchief upon which a few drops of chloroform have been placed acts like magic. Pain is allayed, nervousness subdued, hope restored, the rigid os relaxed, and labor progresses easily and satisfactorily.

A similar condition sometimes obtains in the second stage. Not many days ago I was called to a lady who had been in labor with her second child for eight or ten hours. The messenger requested me to take my instruments, as her first child had been delivered with forceps, and was stillborn; and from the condition she was in, he had no doubt but they would have to be used

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* Read before the Denver Medical Association, February 10, 1885.

again. On my arrival, I found her very much excited, throwing herself from one side of the bed to the other, and screaming with pain. She begged me to use the instruments and relieve her immediately, or she would surely die. She was sure the child could not be born without them, and was willing and anxious to sacrifice its life to end her suffering.

On examination, which, owing to the sensitiveness of the parts, was very superficial, I found the os fully dilated, and the head beginning to press upon the perineum, the membranes intact. I ruptured the membranes, and immediately began the administration of chloroform. In a short time she became quite tranquil, and without becoming unconscious was able to endure the pain without complaint, and was soon made happy by taking in her arms the innocent cause of all her suffering.

In nearly all cases I like to give a few inhalations at the end of the second stage, as the head is pressing upon and passing the vulva, especially in primiparæ, and when the perineum is tense and resisting. I think it lessens the danger of rupture of that organ, and patients are usually very grateful for the relief it gives.

As a matter of course we should give the anæsthetic before the operation of turning, the application of the forceps, or other operation that may become necessary to complete the labor. In such cases it is best to produce full anæsthesia, and the anæsthetic should be given by a competent assistant, so that the operator may give his individual attention to the work before him. As soon as the feet are brought down, or the forceps have been applied and locked, the patient should be allowed to come partially from under its influence, so as to assist, by bearing down, in the expulsion of the child. In other cases I think it best to stop short of complete unconsciousness. My favorite method of giving it is to take a handkerchief, fold it so as to be about four inches square, spread it in the open palm and pour upon it a few drops, not more than a drachm, of chloroform, and close the hand tightly over it; then watch for a pain, or in cases of great excitement do not wait, but hold it lightly to the mouth and nostrils, opening the hand enough to liberate the vapor of the anæsthetic in such a way that it will be pretty freely mixed with the atmosphere before being inhaled. As soon as the pain is gone, or the excitement subdued, withdraw the hand and clasp the handkerchief till the approach of another. More chloroform can be added from time to time as it evaporates; but if the handkerchief is tightly grasped during the intervals, it can be kept for some time. The patient should lie on her side.

(*To be continued.*)

Hospital Reports.

A CLINICAL LECTURE.

BY WM. H. WATHEN, M. D.

(*Continued from page* 330.)

I will spend the remainder of this hour, gentlemen, in discussing sterility in a general way.

Sterility is from the Greek στερεσσ—barren—implying an incapacity for conception, and has as synonyms, infecundity, barrenness, and infertility. It is mentioned in the earliest medical literature, and biblical writers often refer to it as a reproach to woman. Since married life is seldom happy without children, frequently causing the husband or wife to become nervous, fretful, and morose, it is the duty of every physician to study this subject thoroughly. Married women who remain sterile will not believe they are perfectly formed. Not only does the happiness of married life depend upon having children, but also the perpetuation of names and families, the descent of property, and the permanence of dynasties and governments. You will probably be surprised to know that in Great Britain alone there are 500,000 married women sterile. This condition may be absolute or relative, congenital or acquired. In absolute sterility there is no impregnation of the ovule; or if the ovule be impregnated, fixation to the uterine mucous membrane is prevented, and there is no conception, the ovule being destroyed in the tubes or the uterus. In a form of sterility called "sterility not absolute," conception occurs, but abortion follows before the child is viable. In relative or acquired sterility, the woman has had one or more living children, but in number not according to the duration of married life. One child sterility exists in one out of thirteen fertile marriages. There is a high degree of both absolute and relative sterility in heiresses. In the British peerage there is one sterile woman in six and a half marriages, while there is but one sterile woman in ten in the agricultural and seafaring people. In 100 marriages in the British peerage 414 children were born, while in 100 marriages not heiresses there were born 624 children.

The average time from marriage to the birth of the first child is 17 months, and the average time between the birth of children 19 months, and women upon an average bear children from 25 to 38 years of age—less than 15 years.

As one in 13 fertile women bear their first child after having been married 3 years, no woman should be presumed to be sterile until the fourth year of married life.

In order to thoroughly grasp the subject of sterility, it is necessary to keep constantly before the mind a clear idea of the physiology of conception. Several factors are concerned in the process of conception, and these should operate in harmony. The woman must produce healthy

ovules, and the man must secrete healthy spermatozoa. In each there must exist no conditions that destroy the vitality of the ovules or the spermatozoa before they come in contact, and this contact must take place under the proper conditions to produce impregnation. Then there must be no condition which prevents the fastening of the impregnated ovule within the uterus. Thus, you see, conception depends upon the combined forces or matter of two individuals, male and female.

The popular, as well as a large share of professional opinion, that sterility is nearly always due to some defect in the woman, is by no means correct.

Gross's statistics show that sterility is found in man on an average of one case in six. Statistics show that in 83 cases of bilateral epididymitis, only 8 afterward had healthy spermatozoa in the semen, due probably to obstruction of the vasa deferentia. They also show that 90 per cent. of sterile women are married to men who have had gonorrhœa before or since marriage. Spermatozoa may be secreted, yet in copulation not ejaculated on account of some congenital or acquired defect, or their vitality may be destroyed by the secretions of latent gonorrhœa. When secreted and evacuated, they may be prevented from entering the uterus by any congenital or acquired defect that interferes with sexual connection, such as imperforate hymen, atresia vaginæ, etc., or from contraction of the external or internal os, flexions, or conoid cervix. Or their vitality may be destroyed by secretions from unhealthy conditions of the mucous membrane lining the uterus, cervical canal, or vagina. These secretions may take place from glandular cervical endometritis, from areolar hyperplasia, or from latent gonorrhœa. Tumors connected with the uterus, or within the parenchyma of the uterus, or any disease of the mucous membrane or walls of the uterus, may not only prevent the entrance of semen into the womb, but also prevent fixation or conception of the impregnated ovula. Healthy ovules may not be produced on account of enfeebled health, from sudden profound shock to the nervous system, causing ovarian incapacity, or from any disease in or about the ovaries, such as chronic ovaritis, cystic, sarcomatous, cancerous, or inflammatory degeneration, or from peritonitis and cellulitis. Of course there are no ovules in the absence of the ovaries. When they are secreted in a healthy condition, their entrance into the uterus may be prevented by displacements, detachments, or absence of the fallopian tubes, or by any condition that abstructs, contracts, or obliterates their cavity.

The theory of mechanical obstruction has been almost universally taught in this country and in many parts of Europe: but recently the theory that sterility is due to local uterine disease has obtained a strong foothold in some parts of Germany, and especially in and about St. Petersburg. You may infer from my remarks that I am not wedded to any one theory of sterility, but believe that it may result from mechanical obstruction, from local uterine disease of the female generative organs, or from constitutional diseases, or finally, that it is often dependent upon some abnormal condition in the husband. Some women, while potentially fertile, are actually sterile, or may have relative sterility. This is seen in women who marry successively two or more men and have children by only one of them, or where a man marries two or more childless widows and has children by each of them. This may be styled sterility from incompatibility. Sedentary habits, confinement, changes in climate, obesity, and inter breeding, are causes of absolute and relative sterility. That spasmodic dysmenorrhœa is a cause of sterility is shown by the fact that in 332 women absolutely sterile, 159 suffered from this trouble. Most fertile women have pleasure in sexual connection, and may also have desire; but women may conceive who have neither desire nor pleasure, while others who have desire and intense pleasure remain sterile. In the absence of some positive condition in the woman that will prevent conception, we should not determine that she is sterile until we examine the semen of the husband to see if it contains living and healthy spermatozoa. While a woman with syphilis may have absolute sterility, sterility not absolute, or relative sterility, we also know that sterility not absolute and relative sterility are often the result of syphilis in the husband where the wife is not infected.

In the treatment of sterility, first try to find the cause, and then to remove it. Unfortunately, we see many cases that we cannot benefit; but others can be cured. Correct abnormal constitutional conditions, and attend especially to the secretions and the excretions. If the woman is anæmic, or her general health degraded, give nourishing and easily digested diet, tonics, constructives, and alteratives; if she has syphilis, treat that; if she suffers from obesity, reduce her flesh; if she is constipated and has indigestion, give her a gentle laxative containing podophyllin to stimulate the portal circulation, belladonna to act upon the mucous membrane, nux vomica as a tonic to the intestinal muscular fibres, and aloes as a stimulant and tonic to the pelvic vessels to remove passive congestion. Cure any disease or condition that prevents complete or perfect sexual connection, and any disease that causes a secretion or discharge poisonous to the spermatozoa. If the ovules are prevented from entering into the uterus, or are not developed on account of inflammation of the ovaries or of the cellular or peritoneal tissues of the pelvis, use copious vaginal injections of hot water, and apply counter irritation by means of croton oil, cantharides, or iodine over the inguinal regions, to promote absorption of inflammatory products. But if there is contraction of any part of the cervical canal, or obstruction caused by flexure in the cervix, or an elongated conoid cervix which prevents the entrance of semen into the uterus, then I wish to enter my earnest protest against the treatment of Sims, Thomas, Emmett, and others, who advise the use of tents, bilateral incisions, splitting up a lip of the cervix, or amputation of the cervix. Such treatment seldom does good, and often results in evil. Much more scientific and successful results will follow rapid dilatation of the cervical canal to the extent of three-fourths of an inch to an inch and a quarter. Occasionally it may be necessary to make superficial quadrilateral incisions around the external os. The rapid dilata-

tion will generally remove the obstruction from stenosis or flexure, and will tend to straighten and shorten the cervix and to alter its shape.

MEDICAL SOCIETIES.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated meeting, Friday, January 2, 1885, the President, Richard A. Cleemann, M. D., in the chair.

Double Uterus and Vagina.

Dr. Wm. Goodell described a case which had been sent to him on account of pain in the back, various nervous symptoms, and difficult coition. The vagina was double throughout its entire length. Entrance had apparently been effected indifferently on either side of the septum. The cervices were united like the barrel of a double-barreled gun. There was a slight divergence of the upper third of the fundus. The sound entered three inches into each cavity. The septum vaginæ was divided up to the cervix, and her physician reports great relief to the general symptoms.

Dr. C. McClelland described a similar case. Pregnancy had progressed to the third month when the case came under his observation. The vaginal septum was complete. The external contour of the cervix was normal, but a thin septum extending from the os to the fundus divided the cavity into two parts. The prominence of the uterus was greater on one side of the abdomen. The sound was not passed. The vaginal septum was divided shortly before labor. A living child was delivered. About the third day after delivery, a mass, apparently of decidua, was thrown off after three or four hours of labor-pains. After involution was complete, sounds were introduced into the uterine cavities, and the handles diverged one and three-fourths inches. A second conception occurred afteward on the other side of the uterus.

Dr. Goodell had some years ago under his care a case which he at first diagnosticated as an extra-uterine pregnancy, as he apparently found the uterus empty, passing the sound into it while undoubted signs of pregnancy existed. The fœtal tumor was larger toward one side of the abdominal cavity, while the uterus was deflected to the other side. He saw the patient every two weeks, and made frequent careful examinations. He sent the patient to the University Hospital, and fixed a day for operation. One day while lecturing on the case, he had his hand on the abdomen of the patient, and felt a contraction and hardening under his hand. This so resembled the action of uterine tissue that he sent the patient to the Preston Retreat for observation. She was delivered spontaneously.

There was but one cervix and one os, but there was a uterine septum higher up, dividing the cavity into two parts.

Dr. Harris remarked that the observer, in these cases, is liable to be deceived, because the enlargement of the uterus causes it to rotate, the empty half of the uterus admitting the sound in the median line. The uterus, too, is generally poorly developed, as this form of uterus is probably the result of arrest of development, and its thin walls do not give to the palpating hand the normal sense of thickness and resistance.

Double Ovariotomy with Unusual Complications.

Dr. W. H. Parish reported the following case: In September, 1884, I saw in consultation with Dr. M. O'Hara a lady who had been under his treatment for a number of months. She was 52 years of age, and of exemplary habits. The menopause had been established for a number of years, and she had enjoyed good health until a few months ago. In June, 1884, she noticed for the first time that her abdomen was enlarged. In July she consulted Dr. O'Hara, narrating symptoms of indigestion. In August, the abdomen had become so enlarged as to occasion concern on the part of the patient, and she had submitted to an examination by Dr. O'Hara. About August 15, Dr. De F. Willard saw her, in consultation with Dr. O'Hara, and the diagnosis of ovarian tumor was coincided in. On September 6, I saw the patient with Dr. O'Hara, and also diagnosticated ovarian tumor. The physical signs were the usual ones characteristic of ovarian tumor. There was distinct resonance in each flank, and no indication of fluid in the peritoneal cavity. The abdominal distension had become very considerable, occasioning no little interference with respiration, and was associated with slight œdema of the lower extremities and general emaciation. Removal by operation was urged upon the patient, but was positively refused. After the lapse of ten days, I again saw her with Dr. O'Hara. The difficulty in respiration had so greatly increased as to prevent sleep except in the semi-erect position. But little nourishment had been taken and exhaustion had correspondingly increased. In the erect position the pulse was 160 per minute, in recumbency 130. The abdomen measured forty-five inches at the umbilicus. Its shape had changed since my previous visit. In the flanks there was distinct bulging, with fluctuation and percussion dullness. I diagnosticated peritoneal dropsy as a complication of the ovarian cyst. The œdema of the lower extremities had increased. The patient had requested that she be tapped, and it was with reluctance that I consented to resort to that measure. On September 14, with the assistance of Drs. O'Hara and J. B. Roberts, I attempted to diminish the size of the abdomen by tapping the cyst, using for that purpose the ordinary trocar and cannula. Only a few drops of of thick, gummy substance were obtained. The cyst contents were too thick, too jelly-like, to run through the cannula. But a single puncture was made. The patient now gave her consent to the performance of ovariotomy.

September 16. The patient has been fed and stimulated as her condition demanded or permitted. Pulse 120, respiration 40, temperature $98\frac{3}{4}^{\circ}$ Fah. As yet no apparent disturbance from the tapping.

September 17. Pain referred by the patient to the bowels; three movements, probably resulting from indigestion.

September 18. Operation performed; previous to the operation pulse 130, respiration 40, temperation 99° Fah. Tongue dry and brown. Bowels moved twice during the night. Still has pain,

supposed by the patient to be in the bowels. There were present Drs. O'Hara, A. H. Smith, J. B. Roberts, and McElroy. The patient was etherized by Dr. Roberts and the usual incision along the linea alba was made. The tumor was found to be adherent to the anterior abdominal wall. An attempt was made to break up these adhesions, but the cyst-wall was so extremely thin that the cyst was soon torn into. Its contents were too gummy to flow, and it was necessary to scoop out this substance with the hand. The contents had the consistence and appearance of calf's-foot jelly, and was adhesive like gum, sticking to the hand so that it was necessary to strip it from one hand with the other. There were numerous slight adhesions to the intestines, but as the cyst-wall was so extremely thin these adhesions were not troublesome, portions of the cyst-wall being left attached to the intestines. It was soon discovered that the cyst-wall had ruptured prior to the operation, and that every portion of the peritoneal cavity contained quantities of the colloid material and masses of dark grumous blood. The contents had doubtless escaped gradually from a rent in the upper posterior portion of the cyst several days before the tapping. It was the presence of this material in the peritoneal cavity that led me to diagnosticate the co-existence of peritoneal dropsy. There was no serum in the peritoneal cavity. Washing the peritoneal surface with water would not remove the colloid material, and it became necessary with hand and sponge to remove it from the under surface of the liver, from about the spleen and kidneys as well as from among the intestines. After emptying the large tumor, it was discovered that there was a smaller one about the size of a fœtal head, unbroken and without adhesions and partly pressed into the pelvis by the superincumbent large one. The two tumors presented the same characteristics. They had their transparent walls with numerous internal alveolæ and thin septa, with gummy colloid contents. About the base of each, but especially of the larger, there was a limited amount of solid substance. The pedicle of each was ligated and dropped into the abdomen. Each tumor evidently grew from an ovary. The general peritoneum, wherever it could be seen or felt, presented innumerable cysts with walls and contents like those of the ovarian cysts. These peritoneal cysts varied in size from that of a millet seed to that of a pea. Many of the larger ones were ruptured by the hand or sponge. These minute cysts were not arranged in clusters with stem-like attachments to the peritoneum, but were isolated, and had the appearance of blebs on the peritoneal surface. The peritoneum presented general injection of its capillaries with slight roughening of its surface, but there were no evidences of active or decided peritonitis. The hemorrhage was but trifling, and but few ligatures were applied. The abdominal incision extended about an inch above the umbilicus. A glass drainage-tube was introduced at the lower angle of the wound, and the remainder of the incision was closed with silver sutures.

At the close of the operation shock was not great; pulse 134. Morphia was given, and the patient passed a somewhat comfortable night. No vomiting.

Morning of 19*th*. Pulse, 138; respiration, 34; temperature. 100° F. *Evening*, pulse 140; respiration 30; temperature 102° F. Vomiting a little, and abdomen somewhat distended. Face pale and features pinched. Three ounces of pinkish serum from tube. Vomiting checked by swallows of hot water and a mixture containing creasote and sodii bicarb. Tube washed out with carbolized water.

The third night was restless, with vomiting. Next morning, pulse 150, respiration 26, temperature 101¾°; increased stimulants, and at noon pulse was 138, respiration 26, temperature 100⅜°.

Fourth night. Slept some, less vomiting, she takes koumiss and retains it; *next morning*, pulse 140, respiration 20, temperature 100 4/10°.

Fifth night. Pulse 120, respiration 22, temperature 100⅝°, stronger. Three ounces of a somewhat offensive fluid were taken from the tube; bowels were moved instantaneously.

Sixth night. She slept well, pulse, 114, respiration 23, temperature 101½°. Sutures removed, union complete. Tube slipped out and could not be introduced again. It left a canal with healthy granulating walls.

Seventh night. Vomiting returned. She did not receive the usual amount of stimulants during the night. Exhaustion and vomiting increased, without additional rise of temperature, and patient died on the ninth day. The death was doubtless due to exhaustion. The disease of the ovaries and of the peritoneum was doubtless colloid cancer. The tumors and the material removed from the peritoneal cavity weighed fifty pounds. It seems right to conclude that had the tumors been removed in their earlier stages, the patient would have most probably recovered from the operation and have remained exempt from the disease months or years, or perhaps permanently.

Dr. Montgomery spoke of the advantages of early operation, before peritoneal involvement. He also alluded to the dangers of tapping. He gave a short history of a case of ovariotomy with colloid contents, and recovery from the operation, but followed by death six weeks later from cellulitis and ascites, the cause being unknown.

Dr. Baer related a somewhat similar case in which the patient recovered, but is now apparently dying from a recurrence of the disease in the upper part of the abdomen.

Dr. Parish in closing said that the tapping was done with reluctance, but did no harm in this case. The peritoneal complication made the case hopeless.

OFFICERS FOR 1885.

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PHILADELPHIA COUNTY MEDICAL SOCIETY.

Spasmodic Tabes Dorsalis.*

Dr. John M. Keating read a paper on this subject, saying an interesting article appears in the *Revue Mensuelle des Maladies de l'Enfance*, December, 1884, by Dr. d'Heilly, on "Spasmodic Tabes Dorsalis," relating three cases, from which we gather the following valuable points, by literal translation:

About 1875, Prof. Charcot separated from the group of chronic myelitis an affection described as *spasmodic* tabes dorsalis, which was about the same time written upon by Erb, under the name of spastic paralysis. It is a chronic affection, characterized by slow and gradual progression, without doubt, of spinal origin, with a paresis of the lower extremities, muscular contraction, and with spasmodic tremors, either occurring when the limbs are touched or movements attempted, or else spontaneously. There is also increased tendon reflex.

It is most frequent in adults, but Erb, Seeligmuller (*Progres Médical*, 1876), d'Espine and Picot, have recorded a number of cases in children. In these cases, motion alone is affected; sensibility remains throughout normal. The disease may begin early; at eight months in one case of the three reported, at two and one-half years in another. Ordinarily, it is first found out by the mother, who finds difficulty in flexing the knees, or in separating the legs. In well-marked cases, the legs are stiffened, as the child lies in bed, from time to time, especially the feet, which are also turned in (equino varus); there is contraction of the abductors and extensors of the thighs. At times, the rigidity becomes marked, often the knees are held in slight flexion, and it requires some force to move them. On exciting this, the limbs are thrown into a tremor, which may be limited to the feet, or may extend to the muscles of the trunk—in fact, to the whole body. If the child be placed upon its feet, by grasping it by the body or arms, the thighs, which are flexed upon the pelvis more or less, will be adducted, the knees touching, the feet will assume a position of forced extension. In attempting to walk, the feet will drag along the ground, stumble over the least obstacle, and constantly interfere with one another. None of the children reported could walk absolutely alone; one could walk a few steps, when supported by an object upon which it rested the weight of the body by the arms; the gait was shuffling. The epileptiform tremor of the muscles is at first provoked by standing, and this greatly hinders the walking. In three cases reported, the upper extremities were not involved. This is not absolutely the rule in all cases, but when the arms are involved this follows the trouble in the lower limbs, usually at long intervals. In such cases, there is a paresis of the muscles, without involuntary flexion of the fingers at first, which is intermittent in character, and then permanent. The wrist becomes rigid in extension and pronation, so, also, the elbow, and the arm is hugged to the thorax.

With rigidity comes exaggerated tendon reflex, which, according to Charcot, precedes contraction, and which persists throughout its course, and succeeds it. It is usually very marked in the knees, less so in the feet, and in children is less so than in adults. The symptoms remain confined to the motor tract throughout the disease; the usual symptoms, due to disturbance of sensation, which accompany the different forms of myelitis are absent. There is no rachialgia, no feeling of constriction, no pain; neither are there sensations of cold, nor formications, nor fugitive pains, which, if they existed, would soon be made known by children.

Cutaneous and deep sensibility are normal; there is neither hyperæsthesia nor anæsthesia. In one of the cases observed, there was some well-marked anæsthesia of the lower extremities, but the case was a doubtful one. Sometimes, according to Westphal and Berger, interstitial myelitis may extend itself, involving the posterior tract, and then the symptoms of ataxia complicate the spasmodic contraction. The functions of the sphincters are normal; there is neither retention of urine nor incontinence, which is remarkable for children with disease of the cord.

The muscles of the thigh are not atrophied, and electro-contractility is normal. In one of the cases reported, nutrition was excellent; in the other two, it was somewhat below par, but this was accounted for by the prolonged enforced rest in bed. The duration of the disease is not limited; complete cure is rare. The symptoms persist indefinitely, despite treatment, without much improvement; if they do become aggravated, the disease is even of itself directly fatal. In children, the zymotic diseases, or most frequently tubercular diseases, make a fatal termination. It is to be regarded as an infirmity rather than a disease, as it will not prevent of itself the patient reaching adult life. We have only written of the affection in its bearing upon children. In adults it is most common at the age between thirty and fifty, and slightly more frequent in males than females. The cause is unknown; possibly prolonged exposure to damp cold is the most frequent. In children, possibly blows, a fall, or exposure. There is a congenital form, which possibly results from an arrest of, or from irregular, development in the motor tract, or is traumatic from instrumental or difficult labor. Little records a case such as this, and attributes it to spinal congestion, due to asphyxia. Possibly inheritance has its influence. In the case narrated below, the other twin was born with arrested cranial development, and lived but a few moments.

The following case serves as an example:

Louis, aged 5 years, entered the hospital (Trousseau) August 30, 1883. The child is a twin, its brother survived but a few moments. The father and mother are in good health; they are not affected with syphilis nor alcoholism. The mother has never miscarried. The child has never walked alone, but since 3 years old he could stand alone with the aid of a fixed support, and could take a few steps in that way. He began to talk at the age of eighteen months. The

*I would suggest a better name in "Symptomatic spastic contracture of infancy."

disease dates from his eighth month, at which time the mother noticed that she had difficulty in separating the legs of the child; they were straightened and stiffened at times, then became relaxed, and the conditions would again recur, either spontaneously or upon the slightest contact. The arms were in every way normal. About a month after, tremor was noticed when the child was lifted by the arms and held upright on the table. In the following month the contractions increased, and if forcibly overcome would return by themselves at once. Cold douches and faradization brought about some improvement, the permanent crossing of the limbs disappeared, and the intervals existing between the spasmodic contraction of the muscles lengthened.

The condition of the patient at present is as follows: The muscles of the lower extremities are in a state of contraction, the feet extended in equino varus, and cannot be overcome without considerable force. There is no notable muscular atrophy. When the child is held upright, the contraction increases, the inferior extremities are adducted, the feet in equino varus resting in their metatarsal phalanges. The legs cross, and the foot in advance tends to place itself directly in front of the one supporting the body. The little patient can only take a few steps by supporting himself on his arms. At times the contraction subsides entirely and the limbs become flaccid, but if the limbs are touched, however lightly, or he makes the attempt at movement, the contraction returns. Patella and plantar reflexes are exaggerated. Faradic contractility is normal. When supported erect the two limbs take upon themselves epileptiform movements which can be equally well provoked by seizing roughly the foot in advance. This tremor is more pronounced in the right limb. There has been no pain either spontaneous or upon pressure. Sensation is normal. The intelligence is somewhat undeveloped. The expression is heavy. Speech normal. The cranium shows faulty development; it is not symmetrical; posteriorly it is flattened. The frontal fossæ, especially the left one, very prominent. The right occipito-parietal region comes out in bold relief, and the left is correspondingly depressed.

The following typical case, reported by Dr. C. K. Mills, in *New York Medical Record*, September 6, 1879, presented in detail the marked features of the disease, and as I now have the patient under my care and have been able to study his present condition in contrast to what it was in 1879, I can dwell more at length upon the prognosis.

B. D., æt. 4. Nothing known of the previous history. He has a fair-sized head, but it is flattened a little more than usual from the vertex forward. The fontanelles are closed, but the lines of the sutures are projecting and rough. Both pupils are dilated, and according to the nurse, they are always in that state. He has left internal strabismus. He has no facial paralysis, he can protrude the tongue without difficulty and he talks pretty well. He seems to have fair intelligence, but he cries upon the least provocation. His back seems weak and tends to project backwards as he sits in the chair. He has no spinal curvature. He has good use of his arms, but they show a tendency to flex at the elbows. They frequently get into a semi-flexed position when he is quiet, and sometimes resist extension slightly, but they are not rigid, and he can straighten them himself without special effort. He is unable to stand alone, and if attempts to force him are made, he becomes much alarmed. If not held, he falls at once to the floor. Supported by the hand or from behind, he stands in a peculiar position. The legs from the knees upward are slightly drawn together; below the knees, they are a little apart. His heels are kept slightly elevated. The thighs are bent on the pelvis at an angle of about 120°, and the legs have about the same inclination as the thighs. The feet turn slightly inward. The flexors and adductors of the thighs and the muscles of the calves feel hard, and are in a condition of tonic spasm. He walks in a curious fashion, keeping hold of the hand of the nurse. His legs remain semi flexed at the knees. He steps on the front part of his feet and toes, the heels never touching the floor. The thigh and leg muscles are fully developed, particularly the flexor group. Electro-contractility is generally well retained. Sensibility is good. The limbs are not cold nor changed in color. The joints are free from adhesions. The prepuce is not adherent, and can easily be retracted. When sitting or lying down, his legs can be straightened by the exercise of some force, but they immediately tend to return to their state of abnormal flexion and adduction. Slightly tapping each patella tendon, the corresponding foot and leg are projected quickly and somewhat forcibly forward. I can produce the same phenomenon by tapping upon the lower part of the tibia. Abruptly forcing the foot into flexion and smartly striking the tendo achillis, no tremor or oscillation is set up, but the spasm of the flexors and adductors is increased.

Dr. Mills concludes that the disease is one of the motor disorders of the cord of the lateral or antero-lateral columns, but should not be confounded with primary lateral sclerosis, also congenital.

Samuel Gee (Bilroth Hospital Reports, vol. 13, 1877,) writes of spastic paraplegia, and considers the disease as congenital or beginning in infancy. Dr. S. W. Mitchell is quoted by Dr. Mills as having spoken of cases of children with rigidity of the legs from defective cerebral development and also of cases of spasms of ihe adductors of the the thighs, in which he has had circumcision performed without benefit. Dr. Mills, in this lecture, quotes a case which he saw with Dr. Roland G. Curtin, of this city, where all the symptoms above recorded followed an attack of rheumatism complicated with endocarditis in a girl of 13. She had in addition severe pains or aching in the joints or limbs. Under nitrate of silver, she rapidly improved, and in two weeks was well.

In the continuation of his interesting article, Dr. d'Heilly (*Revue des Maladies de l'Enfance*, January 1885,) discusses the question as to the cause and seat of this interesting symptom, quoting the researches of Richter and Berger in Germany as showing its dependence in many cases upon a primary sclerosis of the lateral columns. But, again, distinct cerebral symptoms, such as convulsions in infancy, have initiated the attack, and the spastic paraplegia following, being in

such cases a secondary phenomenon—and in connection with this, quotes Ross (*Spas. Paral. of Infancy, Brain*, October, 1882,) as asserting, that although there may be a localized spinal lesion primary, the most usual condition is one of arrest of cerebral development, associated with a bilateral hemiplegia from congenital absence of certain centres, but should this latter explanation be correct, less marked cerebral symptoms should exist, than are presented by the cases—almost all the affections of the cord resulting from pressure, or from sclerosis, present more or less certain features which show an involvement of the lateral columns, in most of them there is pain or anæsthesia, vesical paralysis or paresis, muscular atrophy or incoördinatiou of movement and the tendency of most of them is to extension.

The ataxia of Friedrich presents many symptoms in accord with this disease. Sensation is normal. The bladder is unaffected, and there is no muscular atrophy. There is muscular incoordination and gradual involvement of the arms, and finally speech is affected. Frequent errors are made in diagnosis in such cases. Even Charcot is reported by d'Heilly as recording a case of supposed spastic paralysis in which the existence of cerebro-spinal sclerosis "en plaques" was found post-mortem.

As d'Heilly distinctly emphasizes the fact that "spasmodic tabes dorsalis" never presents any cerebral symptoms, those cases which are recognized as distinctly hemiplegic in character should be eliminated (see excellent paper by Dr. Sarah J. McNutt, Archives of Pediatrics, January, 1885), and also double infantile spastic hemiplegia (same author, *Am. Jour. Med. Science*, January, 1885). In the latter affection, which more than any other may possibly be confounded with the one in question, Dr. McNutt's exceedingly valuable paper gives us as symptoms "more or less complete hemiplegic motor inability with contraction and defective development of both bones and muscles," "with or without aphasia, monosyllabic utterances, dysphagia, dyspnœa, and idiocy, the latter being especially characteristic of the double affection."

We have endeavored to epitomize this interesting communication, because we believe these cases to be overlooked in this country, or misunderstood. The diagnosis is readily made in marked cases, especially in adults; doubtless some will read this article and remember cases of their own which had puzzled them. Certainly in the cases referred to by Dr. d'Heilly, there was a lesion of a more or less persistent character, but are there not functional derangements, prototypes of the more serious disease, whether disturbances in nutrition or in circulation, which can be influenced by treatment? Can we not have one form depending upon imperfect development of cerebral centres, and another, possibly a difference in degree only, affecting in the same way those of the cord? Cases of functional paraparesis in infancy, with spasmodic adduction, are certainly noted by all who see much of children's practice, and in such cases the muscular wasting, when it does occur, is secondary, owing to want of use.* In our own experience these congenital cases seem to be due to imperfect development, as the intellect shares this condition, though to such a slight extent as only to be noticeable by comparison; the child is said to be backward.

Functional contractions are not infrequent after acute diseases in infancy. A child of my own at the age of twenty months had spasmodic closure of the fingers and great rigidity of the wrists, immediately following a mild attack of rötheln, which lasted several days (3 or 4). There was no pain apparently, and none of the other muscles were affected. When playing, she lifted her toys with the back of her wrists. Nutrition was perfect, the functions normal. In this case, relaxation would come on at times, but the slightest touch or effort on her own part would bring about violent contractions. There was relaxation during sleep. I noted this same condition following measles, in an infant, which involved the muscles of both arms and legs, the extensors of the legs and the flexors of the arms, with contraction of the toes and fingers. There was pneumonia in this case, and the temperature ran high. The little patient gradually improved; in fact in both these cases the improvement was very gradual. Large doses of bromide of potassium, hot baths, and friction, with tonics, were used in the first case, and in the latter quinine and poultices in addition. Possibly these cases may be called hysterical. The lesion is evidently an irritative one, but exactly why it should be limited to certain cord centres and be painless, is an interesting problem.

But in such cases as reported by Dr. d'Heilly, when changes have probably taken place of a definite character, and especially if they occur in children but a few months old, our only chance for treatment points to alteratives, tonics, and encouraging nutrition.

Like all other symptoms, contractions may represent in infancy and childhood, as well as in adults, simple irritation, hysterical possibly, and every grade to advanced disease. I think chorea may be classed in this category also.

As for the treatment of well-marked cases of spasmodic contraction, there seems but little hope of doing good. The disease, whatever its lesion may be, is limited—is never fatal—and after reaching a stage about as advanced as the boy B. D., quoted from Dr. Mills' report, somewhat improves. This boy can now take a few steps by himself before the muscular spasm upsets him; he is in excellent health, well nourished, muscles firm, and never complains. But in this case the lesion certainly seems to be a bilateral central one. If we were able to recognize the features of the disease of the spinal types in its incipiency, I believe much could be accomplished, and it is for this reason that I bring this matter before you this evening.

All causes of irritation should be removed. If they are males, possibly preputial adhesions are present; they should be broken up or circumcision performed. In my opinion the latter is a most important operation, not so much from the relief to the phymosis, which could be, in many cases, equally well accomplished by stretching (Willard), but owing to the direct results upon the nutrition of the spinal centres, which section

*This I believe should not be confounded with the so-called idiopathic contracture of infancy, which is the result of irritation, and is painful and acute in character.

of the peripheral terminations of the nerves in the prepuce may bring about, acting as does the actual cautery or blisters in other neuroses. In females I would give warm baths, alternating with cold sponging, especially to the spine, and full doses of bromide of potassium. In incipient cases, the bromides are of great importance, with stimulating frictions to the spine, using either mustard poultices, or liniments of oil of amber or croton oil, or possibly dry-cupping. Fresh air and proper diet are, of course, understood; in the latter, milk should always form the principal part, and eggs, also, in preference to animal broths. As regards medication, I would insist upon an emulsion of cod-liver oil, either with liq. acid. phos. comp. (Pepper), or lactophosphate of lime. Arsenic is certainly of great value in these cases. As to quinia and strychnia, I feel doubtful as to their use, even in very small so-called tonic doses; for although the condition is possibly an evidence of anæmia, as are chorea and some mild forms of epilepsy, I would prefer to rely on food, iron, arsenic, and fresh air.

In more pronounced cases, when we have decided evidences of "spasmodic tabes dorsalis," and treatment has been of little avail, we might use the bichloride of mercury, in small and frequent doses—$\frac{1}{150}$ of a grain, three times daily; or if we suspect sclerosis, the chloride of gold and sodium. But I think that the best results are obtained with the nitrate of silver; in it I would place most reliance. Erb is reported as having cured a case with the continued current. Charcot failed with electricity, hydropathy and cauterization.

(*To be continued.*)

EDITORIAL DEPARTMENT.

PERISCOPE.

Repeated Abortions Successfully Treated with Potassium Chlorate.

Dr. E. S. McKee thus writes in the *Cincinnati Lancet and Clinic*, February 14, 1885:

The following case has been under my care for two and a half years, and in its management, Dr. Palmer has a number of times seen the case with me:

In 1882, Mrs. C. presented herself for treatment at the dispensary of the Medical College of Ohio, with the following history: Æt. 34; American; married at fifteen; lived with her husband two years and had two miscarriages; remained a widow one year; remarried, and miscarried eight times. These ten miscarriages occurred during the fifth, sixth, seventh, and eighth months of utero-gestation, one only, the last, being later than the seventh month. Some of these occurred as frequent as two in the same twelve months. On examination, she was found pregnant. Her present husband had always enjoyed excellent health, and her first, she said, was likewise healthy. Her own health had been fair. No history of syphilis could be obtained, nor did physical examination show any evidence of this disease; no malformation of the uterus, chronic metritis, or other local diseases explaining the frequent miscarriages, were found. On further questioning, she said, to use her own language, "The doctor, who attended her about eight years ago, said the afterbirth was nothing but a chunk of fat, and took it home with him."

Presuming the cause of the trouble to be fatty degeneration of the placenta, she was put on chlorate of potassium, fifteen grains three times a day. This remedy was continued with but few intermissions and an occasional laxative pill to keep the bowels open, until gestation was completed. A healthy boy was born. He promised to do well, but succumbed on the ninth day to an overdose of an opiate.

July 10, 1884, she appeared again, about three months pregnant. On the advice of Dr. Palmer, she was, for the second time, placed upon the chlorate of potassium. She took the remedy in fifteen-grain doses three times a day, and, for a time took as high as thirty grains, morning, noon, and night.

August 18, the fœtal heart was plainly heard. The chlorate of potash was given constantly with tinct. ferri chloridi, except when such remedies as tinct. nux vomica or bismuth were demanded on account of stomach disturbances incident upon the pregnancy. At various intervals the fœtal heart was noted to be beating nicely, and on November 25 a healthy boy was born at term, who still lives.

In the last delivery, which was late at night, the messenger failed to get me, and returned to find the baby born. Before my arrival the placenta had been made way with. But for that unfortunate incident, the placenta would have been carefully examined.

It is not my purpose to enter into the broad field of abortion in its medical, moral, and legal senses, but as far as can be only where it is connected with this case.

As to the terms abortion, miscarriage, and premature labor, there is much conflict of authority. Some say it is abortion before viability, and premature labor after that date; others, abortion when occurring during the first three months, miscarriage during the fourth, fifth, sixth, and seventh months, and then premature labor; still another speaks of abortion prior to the twentieth day as ovular, fœtal from this date to the sixth month. The ancients called early abortion effluxio. These are needless and confusing divisions, and lead to no practical result. It is best to speak of abortion prior to viability, then premature labor. Miscarriage is a term that will

cover all, is less ambiguous, and by the laity very much better understood.

Ninety per cent. of child-bearing women abort once or oftener, and about one pregnancy in seven terminates abortively.

The etiology is an interesting field, and one capable of much greater cultivation. As a guide to prophylaxis, a clear knowledge of the causes is very necessary. Important as is this subject, it would be beyond the scope of this paper to enter fully into the the etiology. There may be maternal, fœtal, or possibly paternal.

Habitual miscarriage is a term severely criticised by some authors, yet there seems to be ground for the belief of the habit being present in some women. Edis (*Brit. Med. Jour.*, 1875, ii. 65,) calls it "an assertion of ignorance. We might as well say she aborts because she aborts." This, and the statement that a woman is laboring under an abortive diathesis, he says, are "ignorant dogmas, and it is useless to sit down disarmed and passive under their protection." It has nevertheless been the experience of every one largely engaged in obstetric practice, that some women are unable to carry their offspring to full time. They again and again bring forth stillborn children. One abortion paves the way for another. Repeated abortion, it is said, weakens the uterus.

Burns mentions Schulzius as reporting a case where a woman aborted twenty-three times at the third month.

Dr. Young, of Edinburgh, reports thirteen abortions, the fourteenth going to term.

Tyler Smith* reports six successive abortions with albuminuria.

Protheroe Smith reports a woman who, in thirteen years of married life, had six abortions and three children at term.

Leishmann says there are rare instances where we can only account for the repeated abortion by supposing that the uterus has contracted an inveterate habit. A woman who has aborted is much more liable to a repetition than a woman who has never aborted. There is certainly here evidence pointing toward the existence of a habit, though it is possible that this may be explained away by the presence, in each case, of some cause undiscovered.

Sir James Simpson first used and recommended chlorate of potash in cases where repeated miscarriages had taken place from fatty degeneration of the placenta. He used it on the theory that an abundance of oxygen was supplied to the fœtus through the placental tufts. In a discussion before the Edinburgh Medical Society in 1869, in which Sir James Simpson, Dr. Cuthbert, and others, took part, he said he gave it on account of disease of the placenta, but he believed also that it was a means of arterializing the blood. He was led to the use of the chlorate in such cases by the experiments of Davy and Stephens, who pointed out that an alkaline salt when brought into contact with the blood gave it an arterial appearance.

Dr. O'Shaughnessy† and others have found by experiment that it gives a bright scarlet color to the venous blood and passes undecomposed into the urine. This he found by injecting the remedy into the veins of animals.

Dr. Isambert,* however, denies the statements of O'Shaughnessy. He says the chlorate does not part with its oxygen at the temperature of the body, and, as it is eliminated from the kidneys unchanged, he says it has not the specific action claimed for it. Granted that the observations were correct, they in nowise warrant the deduction, since partial mechanical asphyxia will produce the same result, as will also other alkaline carbonates. As to the real action of chlorate of potash in the system, we have no very detailed knowledge, but the salt is about equal to the nitrate of the same base. It certainly increases at times the flow of the urine, and is eliminated very largely from the kidneys. Viewed from a chemical standpoint, it is improbable that the salt parts from any great per cent. of its oxygen at the normal body heat. It is not only found present in the urine, but also in the bile, saliva, milk, tears, perspiration, and nasal mucous membrane.

Isambert† used it on himself for several days in increasing doses of from eight to twenty grammes. He noticed a greenish color of the stools and an increased flow of the urine, with a feeling of oppression and pain over the kidneys. Ten days after it was taken, he could find it in the urine. The elimination continued twenty-four or forty-eight hours.

It should never be triturated with sulphur, sugar, tannin, or other readily-oxidizable substances, except in the presence of water. Disregarding this precaution has caused many serious explosions. It is easily seen how a distinctly alkaline fluid, as the blood, having loosely combined alkali present, would lead to the gradual oxidization of the organic constituents of that fluid.

The oxygenation of the blood produced by chlorate of potassium was very ingeniously applied by Dr. Fountain.‡ He employed it quite successfully in cyanosis from heart and lung troubles. This investigator died from taking an ounce at a dose, experimentally.

Bruce‖ used chlorate of potassium in six cases where repeated abortion had occurred. In all but one of these the children came to term. In this one he brought the child to the eighth month, instead of the fifth, the usual time at which the abortions occurred. The child's abdomen was found much enlarged from ascites, and it probably would not have lived anyhow. He gave the remedy to the amount of ʒj. daily. In one case he increased it to ʒij. daily on account of weakening of the fœtal heart.

Dr. Inglis§ said he never seen potassium chlorate fail. In one case, after sixteen still born children, the seventeenth was born alive under this remedy.

Dr. Cairn§ reported a case of a woman who had

*Trans. London Obstetrical Society, i, 1859, 108.

†U. S. Dispensatory, "Chlorate Potash."

* *Loc cit.*

†Etudes cliniques, physiol. et cliniques sur l'emploi therap. de chlor. de potasse. Paris, 1856.

‡New York Journal of Medicine, 1859, p. 1.

‖Trans. Obstetrical Society of Edinburgh, Nov. 15, 1865, p. 670.

§Loc. cit.

aborted five times. Potassium chlorate carried the sixth child to the sixth month.

Dr. Keiller* thought it a matter of difficulty to prove that the mother's blood was really oxidized by the chlorate of potassium to the extent of acting on the placental structures or their fluids. He thought the result might come from the tonic power of the salt or the wonderfully tonic power of hope against the depressing influence of dread. He had given it to one woman who had lost seven children; she was now in the eighth month and doing well. Had given the chlorate of potassium to the extent of several drachms per day, largely diluted. The patient used it as a common drink.

Dr. Balfour* said chlorate of potassium does not act as usually supposed, by parting with its oxygen, for it was eliminated unchanged. He thought it altered the constituents of the blood so as to enable it to take up more oxygen, as sea water suspends more oxygen than common water.

Dr. John W. Tradi, of Sedalia, Mo., reports a case of "Threatened Abortion Successfully Treated by Chlorate of Potash." † His patient had been married six or eight years and miscarried each year about the sixth month. He gave 2½ grains every three hours. The patient was in the worst possible condition, and was obliged to remain in bed the whole period of utero-gestation.

No less an authority than Karl Braun, in his recent works, speaks favorably of the use of potassium chlorate in miscarriage.

Tuberculosis of Testicle in an Infant.

Drs. Monks and Wigan thus write in the *Brit. Med. Jour.*, December 27, 1884:

R. A. C., a child aged five months, came under my care on January 1, this year, suffering from an enlargement of the right testicle, which had been noticed by the parents for some days previously to my seeing it. On examining, I found the testicle enlarged, painful, and hard; there was also thickening of the spermatic cord, which latter contained some hard nodules. On examining further, I discovered in the left ischio-rectal fossa a distinct fullness, as though an abscess were forming. There was no evidence of fluctuation in this part, and pressure seemed to cause pain. I came to the conclusion that injury must have been the cause of these two swellings in the first instance, yet the parents were unable to give any history of injury. I prescribed linseed poultices and hot fomentations to the swelling in the ischio-rectal fossa, and lead and opium lotion to the enlarged testicle, and an anodyne mixture internally.

In a few days, the swelling in the left ischio-rectal fossa softened, and I detected fluctuation. I made an incision into the part, and removed about two drachms of pus.

The enlarged testicle did not change much, but if anything, seemed to become larger; I left off the application of the lotion, and applied strapping. Under this treatment, I thought there was some diminution in its size; but I must have been deceived. I then tried the application of iodine, and gave iodide of potassium internally, having now come to the conclusion that it was either specific (although I had no history) or malignant. Yet a malignant tumor of the testicle in such a young child must be rare. The child became weaker. I noticed a few enlarged glands in the inguinal region. The small opening in the ischio-rectal fossa was still discharging. The back part of the testicle became reddened and soft, as though the skin were about to give way. I proposed to the parents removal of the enlarged testicle, as the only remedy to give the child a chance of living. To this they objected. The child gradually sank, and died on March 7, from asthenia.

I could not get permission to make a complete post-mortem examination, but was allowed to examine the testicle. On making an incision into the scrotum, and coming down on the testicle, I found the anterior surface hard, as during life, and the posterior part soft and breaking down, and containing a little pus. On making a longitudinal section of the tumor, I found the testicle proper, surrounded by a large amount of dense and firm tissue; the nodules also were hardened in the cord. I forwarded the specimen to Dr. Dreschfeld, of Manchester, who very kindly examined it. The naked-eye appearances were exactly like those of a scrofulous testicle; and, microscopically, it showed embryonic tissue, giant-cells, and detritus where the mass is broken down; also, in the scrapings, several tubercle-bacilli were found. Dr. Dreschfeld also added, that "it is very likely the scrofulous testicle was the primary focus, and set up afterwards general tuberculosis. Had the parents allowed you to remove the testicle during life, probably the child might have been saved. Scrofulous testicle at such an early period is rare." I may mention, in conclusion, that the parents have no trace of tuberculosis in the family, and their other children are healthy.

Intestinal Strangulation.

Dr. E. P. Easley reports the following interesting case in the *Louisville Medical News*, February 28, 1885:

On the 15th of January last, Mrs. S., aged forty-three, while attempting to drive a nail in the top casing of a window, felt something give way in the abdomen. Soon afterward she had a copious diarrhœa lasting several hours, with vomiting and severe abdominal pain. Her bowels at once became inactive, and failed to respond to large doses of castor oil, Crab Orchard salts, and salt water injections into the rectum. Pain and vomiting were persistent, though not violent nor very distressing. On the 24th she vomited a large quantity of stercoraceous matter, revealing what had not been suspected, a constriction of the intestine. Patient's condition at this time was fairly good; pulse 96, temperature normal; slight tympanitis; much borborygmus.

Up to this time she had taken opium by the mouth and hypodermically, in medium doses. She was now given a half grain of morphine by the hypodermic syringe, and the dose was repeated next morning. This was continued night and morning (with an additional dose of a quarter of a grain by the mouth at intervals through the night) until recovery.

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*Loc. cit.

†Boston Med. and Surg. Journal, 1869, vol. 81, p 287.

On the 25th her condition was much the same, except an increased frequency of the pulse; she still vomited feculent material.

Gastrostomy was now talked of, and Dr. Sloan was called in consultation; but as the seat of the constriction could not be located, and the symptoms were not very alarming, he advised against it at present.

On the 30th the patient (in the meantime vomiting fecal matter daily) had a small, liquid stool, and on the 31st several of like character. Since then she has had a normal evacuation daily. At no time did death seem imminent, the pulse never going above 120 per minute. Prostration was greater after the evacuation of bowels than before; strength and appetite returned slowly.

The seat and nature of the obstruction can only be surmised. Her age and the symptoms render intusssuception improbable. The introduction of a long rubber tube showed no stricture of the rectum nor twisting of the descending colon, nor was anything observed in the case that would lead to the conclusion that the constriction was spasmodic (ileus). The theory of fecal obstruction (ileus paralyticus) is untenable, because the history of such occlusions is wanting in this case. Neither is it likely that diverticula were the cause of the strangulation. The woman had pelvic cellulitis after her last confinement, seven years ago, and this fact points to false ligaments in the pelvis as the most probable cause of the incarceration.

The most acceptable theory of cure seems to be this: Peristaltic action was completely arrested and held in abeyance by opiates, inflammatory reaction being thereby prevented; the early diarrhœa and rectal injections evacuated the bowel below the constriction, the vomiting emptied it above, and thus allowed the intestine to free itself either by its own resiliency or by change of position.

Some excuse, perhaps, is necessary for the delayed diagnosis. When I saw her first, on the 17th, I was informed that she was suffering from suppressed menstruation, something not unusual with her. I failed to get the early history of the case, and I saw her but once after that until the 24th, when the vomited matter at once revealed the nature of the case.

Oil of Wintergreen in Acute Rheumatism.

We have already noted the use of this drug in the above disease, and now we reproduce from the *Med. Age*, February 25, 1885, the following remarks by Dr. J. A. Wessinger:

During the past week two cases of acute articular rheumatism came under my observation, in which the local application of the oil of gaultheria was accompanied with very gratifying results.

On January 31, I was called to see Mr. J——, who had always enjoyed good health, and had never been addicted to the use of alcoholic stimulants. I found the patient suffering from acute articular rheumatism at the right ankle-joint, and also in the great toe of the same foot. Pulse 85, temperature 100°. I immediately ordered local applications of the oil of gaultheria to the painful joints every hour, and the limb wrapped in woolen cloth. At noon, or four hours from the time I first saw the patient, the pain had not abated in the least; other symptoms about the same. I then ordered the ankle and toe to be saturated with the oil every half hour. At night I again saw the patient, at which time the rheumatic pain had very materially abated, and the swelling quite perceptibly reduced. I ordered the treatment continued the same as before. On the morning following, the patient was able to walk with very little discomfort, and was otherwise feeling quite well. At this visit I discontinued the case.

Case 2. P. E——, æt. 8, has always been quite healthy until the morning of February 3, when he was taken with severe pain and swelling in the knee and ankle-joints of both limbs. I saw the patient on the afternoon of the same day, and, from the condition as presented, my diagnosis was acute articular rheumatism. Temperature 102°, pulse 90. I immediately ordered local applications of the oil of gaultheria every half hour, and the limbs wrapped in woolen cloth. I also ordered grain-doses of sodium salicylate in solution, as an antipyretic. On the morning following, patient thought the pain less intense than on the day previous. Temperature 101½, pulse 90. Treatment continued the same as before.

February 5. Patient is able to walk and feels much relieved; pain almost entirely gone; swelling reduced; temperature 101°. I ordered local applications of the oil continued, and increased the dose of sodium salicylate to two grains every hour, under which treatment the temperature came down to normal during the succeeding twenty-four hours. From this date the patient made a rapid recovery. Should other cases of this difficulty present themselves in the future, I shall administer the oil of gaultheria, both locally and internally. I certainly see no reason why much good cannot be done in these cases by the internal administration of this remedy.

Oil of wintergreen, although only recently introduced in the treatment of this malady, promises to be a very valuable addition to the therapeutics of acute articular rheumatism. Its action in this condition is, no doubt, owing to the salicylic acid which it contains, since we learn in chemistry that one of the most interesting compounds derived from wood-spirit is the salicylate of methyl, or oil of wintergreen, which is extracted from the flowers of the *gaultheria procumbens*, and was one of the first vegetable products to be prepared artificially by the chemist. It is obtained by distilling wood-spirit with sulphuric acid and salicylic acid, the latter acid being formed by the action of fused hydrate of potash upon salicin extracted from willow bark.

Observations on the Action of Cocaine.

Dr. George F. Goode thus writes in the *St. Louis Courier of Medicine*, February, 1885:

For the past few months medical journals have published in almost every issue observations on the action of the muriate of cocaine. The testimonials of most observers coincide in regard to many of its actions, which are looked upon as established. But still the work of observation goes on, and those who are employing this valuable

agent in surgery, in many cases in which it is used under varying circumstances, will note points to which attention has not before been called. Indeed, so varied have the experiences of the numerous operators been with this anæsthetic, that it has been a cause of considerable discussion in regard to the existence of certain conditions reported. Although this subject may seem a little trite, I will give a short résumé of observations made in the practice of Dr. Robert Sattler, of Cincinnati.

1. Its anæsthetic effect has been noted in every case, and so great is its value as such that the removal of a foreign body from the cornea is no longer attempted without it.

2. Dilatation of the pupil has been observed in most cases; but in quite a number of cases with dark irides the pupil remained normal or was but slightly dilated.

3. The sclerotic in the majority of instances has become almost blanched. In but a few cases has it caused any congestion. In regard to this last point, the question might be asked: Does the cocaine, if such is a result, have any deleterious influence in operations performed under such circumstances? I will state that in two cataract cases operated upon, in which subconjunctival congestion occurred, very violent reaction followed. In one case, kerato-iritis occurred, and in the other capsulitis ensued. Whether the reactions in these cases were simple coincidences is a very important question; for upon its establishment rest the safety of many operations and the future of many patients.

4. The accommodation, which has been said by some to be affected in the majority of cases, was altered in but a few cases. Two or three points which have not heretofore been published may be added, viz: a fixed condition of the eyes during the operation; a creaky sensation of the cornea on section; a clonic, rigid condition of the iris. These points were especially marked in two cases of cataract extraction. In both of these cases more than the usual number of instillations of a four per cent. solution were made, orders having been given to make instillations, commencing at a certain time, at intervals of ten minutes until the operator arrived. Had he arrived at the time appointed, but three instillations would have been made, whereas arriving about twenty minutes late, they numbered five. In both of these cases so fixed were the eyes that it might have been possible to make the operations without fixation. The cornea also seemed dry and caused a creaking sensation. The patient in one case stated that he felt no pain, "only a rubbing or drawing sensation." So marked was the rigid condition of the iris that it offered a perceptible resistance to the grasp of the forceps.

Monsel's Iron in Diarrhœa.

Dr. Edward T. Williams says in the *Boston Med. and Surg. Jour.*, February 5, 1885:

"Ever since I began practice in 1868 I have been looking for a really satisfactory astringent in chronic catarrh of the bowels. There is, as every one knows, a class of cases where the ordinary vegetable astringents fail to act, or at least act too feebly to do real good. The intestinal lining is in an ulcerous, or quasi-ulcerous, condition, and requires the potent action of a mineral astringent to treat it, as in cases of external ulcer. The acetate of lead is one of the best remedies in these cases, but cannot be safely given for any great length of time. Oxide of zinc in pill form is safe and efficient, but with children, who must take it in powder, often vomits and gripes. Sulphate of copper and nitrate of silver are still harsher, and for children quite out of the question. Subnitrate of bismuth is worse.

"I began trying, in 1876, at the Seashore Home, iron alum (the officinal sulphate of iron and ammonia). I found it better than anything I had previously tried, and have used it freely ever since. It is not quite so well borne by the stomach as lead and bismuth, but far better than zinc or copper. The dose for a child is from one to three grains; for adults, from three to ten. At the Seashore Home we make powders containing one grain of the salt to a twelfth of a grain of opium, giving one or more for a dose according to the age of the child. For adults the pill form is of course preferable. I have had the best results from its use.

"Last summer I began using Monsel's salt in its place, both in public and private practice. This I did from my experience of its great efficiency as a styptic, and a presumption that it might do equally well in diarrhœa, and have found it even better than iron alum. I have tried it only in the dry form, manufactured by Squibb under the name of pulvis ferri subsulphatis. In this State it is not officinal, though it is precisely the same as the officinal liquid ferri subsulphatis evaporated to dryness. It may be given in the same doses and in the same way as iron alum."

Rupture of Heart.

Dr. Cameron reports the following case in the *Canadian Practitioner*, February, 1885:

J. L., aged 36, an habitual drunkard from early life, was admitted to the hospital on November the 26th, suffering from an acute attack of alcoholism. He was extremely shaky and cyanotic, but not constantly delirious. His pulse was small, frequent, and irregular, and my clinical clerk, Mr. Logan, reported a systolic apical murmur, assigned to mitral regurgitation. He was confined to bed, placed on a milk diet, and given tr. ferri. mur. et tinc. capsici, in moderate doses, at frequent intervals, together with bromide of potash in half-drachm dose, at bedtime. He went on fairly well for a couple of days, but on the third day, during the absence of the nurse from the ward, he got out of bed to pass his urine, and while in the act of micturition he fell upon the floor. He was immediately lifted upon the bed, but in the course of a couple of minutes expired. The consent of the friends to an autopsy could not be obtained, and so the heart was hastily surreptitiously removed. The pericardium was found filled with blood, and on removal the heart presented the rupture of the right ventricle seen in the specimen. On testing the valves, it was found that the pulmonary and aortic valves were thoroughly competent. Owing to the position of the rupture, it was difficult to be certain

about the tricuspid, but the outer segment of the mitral valve was very considerably contracted and crippled in its action. The other organs could not be examined.

It was said by some one that the patient had stated, after admission to the hospital, that a doctor had told him fourteen years ago that his heart was affected.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——An investigation of equal interest to botanists and pharmacists is that recently conducted by Miss Helen C. De S. Abbott, of Philadelphia, with reference to the chemical products of the bark of *Fouquieria Splendens*. This is the Mexican *ocotilla*. It yields a vegetable wax, possessing peculiar properties, which are studied in this paper (Reprint from Trans. Am. Philo. Soc.).

——Dr. J. V. Shoemaker, of this city, has reprinted in pamphlet form his paper before the International Medical Congress, "On Treatment of Diseases of the Skin by Novel Means and Methods." It is an excellent review of the subject.

BOOK NOTICES.

Controlling Sex in Generation. The Physical Law Influencing Sex in the Embryo of Man and Brute, and Its Direction to Produce Male and Female Offspring at Will. By Samuel Hough Terry. 12mo., cloth, $1.00. New York, Fowler & Wells Co., publishers, 753 Broadway.

Here is one of those books which pretends to tell a great deal, and tells, in fact, very little. We will give at once the asserted "physical law." It is this: At the generation of male offspring the mother must be in a higher degree of sexual excitement than the father, and *vice versa*. There is a good deal said about the father being "positive," the mother "negative," the male developing "vitreous," the female "resinous" electricity, which sounds as if the author had studied his physics about forty years ago.

There is no satisfactory evidence offered of any such "law;" scarcely of a well-founded surmise to that effect. The author has been hasty in advancing it, and we are a long way off from the solution of the question.

The Year-book of Treatment for 1884. Philadelphia, Lea Bros. & Co., 1885. 12mo., pp. 316. Almost every year an annual review of therapeutic progress has appeared from one or another publishing house, but none of them have survived their third winter. It would appear that there is not the desire among American practitioners for mental pabulum of this kind. Perhaps it comes to them too slowly. Certain it is that a wide-awake journal contains during the year all and more on the therapeutics of the day than can be put in a yearly volume of moderate size.

The present year-book is the combined work of a number of contributors, each of whom has taken care of a special branch. It is an English composition, and has the objection that it scarcely gives a fair show to American workers. The text is a series of brief summaries of articles in various journals. They are carefully made, but not more so than those found in the quarterly epitomes.

The London Medical Student, and Other Comicalities. Selected and compiled by Hugo Erichsen, M. D. Pp. 316. Published by Dr. H. Erichsen, 11 Farmer street, Detroit, Mich. Price $2.

From a variety of sources, principally the London *Punch* and the leading English and American medical journals, Dr. Erichsen has compiled a volume of racy anecdotes and amusing narratives of a medical character. They will serve admirably as an antidote to the gloom that is liable to hang over the long hours of waiting to the young or unoccupied physician. The longest narrative is a series of sketches supposed to be taken from the life of a London medical student. It is more amusing than true to life, at least to life in the present day. Since that time the medical student must have materially changed, if it was then a veracious portrait. Many of the shorter comicalities are very good indeed.

Human Osteology, Comprising a Description of the Bones. By Luther Holden, assisted by James Shuter, F. R. C. S., with numerous illustrations. Sixth edition.

A Hand-Book of Physiology. By W. M. Baker, F. R. C. S., and V. D. Harris, M. D. Eleventh edition. Illustrated. Vol. I. William Wood & Co., New York.

These two volumes are issues of Wood's "Standard Medical Library," for 1885. Both of them are treatises long and favorably known to the profession, and with the careful revision and constant editorial care they receive as each edition is prepared for the press, it is likely that they will long continue to be selected as text-books.

In the present issue, both of them are illustrated and brought down to the present position of science, so that they have the merit of new books.

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THE DUTIES OF CITIES IN THE FACE OF EPIDEMICS.

The approach of warm weather begins to stimulate our citizens to take measures to protect the city against the inroad of Asiatic cholera which is feared for the coming summer.

The County Medical Society has organized, through its Committee on Hygiene, a series of public lectures on sanitation; the Society for Organizing Charity has addressed an earnest appeal to Select and Common Councils; and in connection with the Wagner Free Institute of Science, a Sanitary Protection League has been created, whose object is to advance the health of the city, and to ward off epidemics.

These various undertakings are all timely and appropriate; and representations of the danger of dirty streets, neglected privies, injudicious diet, adulterated milk, decaying vegetables, and the like sources of ill health cannot be too strongly urged on civic authorities. The history of past epidemics is conclusive to the effect that united and intelligent effort on the part of the people, the magistracy, and the physicians, can prevent the development of epidemic cholera. If it gains a destructive foothold in any American city, it will be through the culpable neglect of the citizens.

With the present rapidity of travel, and the great increase in the number of travelers, the old forms of quarantine are no longer possible, and it is doubtful if they ever had much utility. Yet it is absurd to add that non-communication is no bar to the extension of cholera. Many striking examples to the contrary might be quoted. The difficulty has been in preventing communication, and this difficulty yearly increases.

While the vast majority avoid a centre of pestilence, there are always reckless or confident persons ready to enter it; and the anxiety of those in such a locality to seek escape from it will certainly foil the most vigilant sanitary cordon.

The result is that practically preventive measures are the only safe ones on which to rely. They are also the cheapest, even though they

may be very costly. Any parsimony in expenditures to bring a city into the highest sanitary condition is grossly out of place. Every dollar saved here will be ten lost in the future. The tremendous depreciation of values of all kinds in a city scourged by pestilence has been recently illustrated at Toulon, Marseilles, and Naples. Business came almost to a standstill; the failures were almost as numerous as the firms; and empty stores and houses left real estate owners without an income.

Let there be no hesitation, therefore, in all our cities, about appropriating money liberally to the cleansing and purifying of their purlieus.

PERSONAL MEDICAL JOURNALISM.

There is a sort of medical information which we look upon with no great favor, and which we take no pains to disseminate: it is that personal medical gossip which has its only attraction to readers because it refers to some person of note. In English journals this is constantly seen with reference to members of the royal family, and each journal plumes itself particularly on being the first to report that the Prince of Wales woke up with a headache after his last night's jollification, or that the Queen was again suffering from rheumatism in the toe.

This personal journalism has lately been disgustingly displayed with reference to the case of General Grant. Bulletins appear in certain weekly medical journals, full of minute details, generally wrong, and never instructive to the scientific mind.

The *Medical Record* lately sent out to a large number of secular papers a slip in advance of its regular issue, stating that private, personal revelations of the general's attending physicians had pronounced his case one of simple ulceration, and therefore soon to recover.

The next week the *Medical News* countered this with another batch of confidential communications from the general's physicians, exactly the contrary in tenor, and conveying the most unfavorable prognosis. This also was sent on slips to the secular papers.

Such action appears to us discreditable to the journals named, and to the physicians in attendance on the case. Medical readers gain nothing by such bulletins, and the public are cultivated in the morbid craving for pathological details. The real object of both journals was not any beneficent one, but only to gain notoriety with the general public, to secure which there was no hesitation in sacrificing the confidences of professional brethren, or in pandering to corrupt public taste. If this is journalistic energy, it is singularly misdirected and blameworthy.

PERINEOPLASTIC OPERATIONS.

The radical operation so often performed in cases of laceration of the perineum is by no means always attended with success. At times, the operation has to be done over and over again, and yet the final result is not all that is desired. Dr. Schmidtmann, who of late has four times operated for lacerated perineum, and each time with perfect success, has published his experience in the *Archiv. für Gyn.*, xxiii., page 396. He believes that the unsatisfactory results are mostly to be ascribed to one of two reasons, or to both, viz.: First, to the intestinal gases, and second, to the want of complete adaptation of the wound margins at the sides, this want being caused mainly by the imperfect sutures. S. tried to remedy these defects as follows:

To carry the intestinal gases out of the way he introduces a gum drainage, the gutta-percha tube of which must lie upwards about one and a half inches higher than the highest intestinal wire-suture, and which should be provided outside of the anus with lateral openings. This tube is held in place by the last intestinal suture, which is laid around the drain and tied underneath it.

To remedy the second evil, which, in S.'s opinion, is caused by the strong dilating action of the transversus perinei, due to the laceration of the constrictor cunni and of the sphincter ani externus, S. applies one or two deep and penetrating sutures from the lowest part of rectum to the vagina, passing through nearly all the tissues forming the wall of the latter. These sutures are

tightened at both ends, and ought to grasp as much tissue as possible. This is done for the purpose of diminishing the tension, which otherwise would necessarily decrease the value of the more superficial stitches, which after all alone can lead to a healing by first intention. As the dilating influence of the transversus is always exerted in these cases, the superficial stitches must invariably yield, if the precaution mentioned be not observed.

POLITICS IN MEDICINE.

Civil service reform, which both political parties seem to approve of, good everywhere, is especially applicable to medical positions. There are many such under the government, and we hope that no effort will be countenanced to make changes on account of the political views of aspirants or incumbents.

We have heard some talk of an effort to supplant the Supervising Surgeon-General of the Marine Hospital Service. No good reason has been offered, but the underlying motive seems to be that the duties some years ago assigned to the National Board of Health have been latterly transferred to the Marine Hospital Service.

Of course, such a change stirred up a certain amount of bad blood. Some ambitions were defeated, and there was a stop put to some altogether excellent series of investigations and reports.

The nation lost by its parsimony and shortsightedness; but the Marine Hospital Service, or its senior officer, was not to blame, and the act should not be visited on him.

If medical societies and leading medical men will urge the true facts of the case, a change will not be made for this cause: and it should not be.

NOTES AND COMMENTS.

Treatment of Tenesmus.

There are two symptoms which, though occasionally accompanying grave diseases, are often met with in mild affections, but exceedingly annoying to patients. These symptoms are tenesmus of the rectum and tenesmus of the bladder (recti et vesicæ). In many cases of diarrhœa, especially during the warmer season of the year, the symptom, of which the patient really complains, is the frequent desire to evacuate the bowels, accompanied by a peculiar spasmodic condition of the sphincter ani. Again, in catarrhal conditions of the bladder, also mostly prevalent during the summer, when the main symptoms are a frequent desire to micturate and a painful smarting sensation during the act, a very similar tenesmus seizes the neck of the bladder, and often is almost unbearable to the patient. Happily these symptoms—the tenesmus in both cases—are not apt to endure long, but as long as they do last they are a torment to the individual suffering from them.

Heretofore we had to be satisfied either with the causal treatment of the underlying disease—the diarrhœa or dysentery in the one, the catarrhal inflammation or the specific urethritis in the other case—or with the local application of heat or of anodynes, the latter in the form of suppositories if the bowels were the seat of the lesion, or in that of injections if the bladder was the organ affected.

Recently Dr. J. Bettelheim (*Wiener Med. Presse*, 1884, 45,) has tried the new local anæthetic, muriate of cocaine, in a severe case of tenesmus of both rectum and bladder, and the result was very favorable and prompt, though not of more than a few hours' duration. Still, in the milder cases mentioned, where the tenesmus forms *the* symptom for which the patient consults the physician, a transient action would be all that is necessary to insure success; and if the action of the cocaine in such cases can always be relied upon, on that one account alone the addition of the drug to our pharmacopœia would be a boon to many a sufferer. The solution employed in B.'s case was the usual 2 per cent. one.

Supposed Poisoning by Colchicin.

The Paris correspondent of the *Lancet* (January 24, 1885,) writes to that journal as follows:

Colchicin, the active principle of the seeds of colchicum, recently discovered, is a most powerful poison, and has not till now, I believe, been adopted for criminal purposes, although the other preparations of the plant, when given in moderate doses, possess known therapeutic properties of great value. The extreme toxic nature of colchicin has been taken advantage of by a manufacturer of artificial flowers in Paris, who obtained the drug by surreptitious means under the pretence of requiring it for the purposes of his

trade, ostensibly for dyeing flowers of a violet hue; but it is supposed that in reality it was for a criminal purpose, as circumstances have occurred which lead to the suspicion that he used it to poison his first wife, who died a short time ago, and who had been buried only a few weeks when he married his present wife, a girl of eighteen. From the smattering of chemistry that the florist had, he hit upon colchicin as being the most convenient for his purpose, as no trace of the presence of the alkaloid was found in the body after death. This circumstance, coupled with the symptoms with which his wife died, excited some suspicion at the time, which has been increased by the fact that the man had, shortly before her death, made two unsuccessful attempts to obtain the alkaloid at chemists' shops; and as the cause of death by the administration of this drug is as yet only an assumption, the body of the supposed victim is to be exhumed and submitted to an examination. I may here note that a chemist, writing on this subject, describes colchicin as a salt crystallized in the form of fine needles, without odor but of a bitter taste. It dissolves in water and in alcohol. One centigramme in solution killed a cat in a few hours. At the autopsies of the animals so treated, the stomach and the digestive tube were always found to be excessively inflamed, just as if the parts were burnt. Meanwhile the accused man is under arrest, and the case is being thoroughly investigated.

Chorea.

Dr. O. Sturges has treated 219 cases of chorea, and in about twenty per cent. a rheumatic diathesis could be established, while fifteen per cent. more had suffered at some time or other from rheumatic symptoms.

Dr. Hadden has recently observed three cases of chorea, in which the faculty of speech had been lost.

Prof. Engel, of the Medico-Chirurgical College of this city, introduced to the students during one of his clinics in February an interesting case of chorea in a girl eleven years old. Last winter she had an attack of acute articular rheumatism, and two months later chorea developed itself. The St. Vitus' dance disappeared after about six weeks. This winter she again suffered from rheumatism, and again, two months later, the first symptoms of chorea showed themselves. The disease was double-sided, but the right side was far more affected than the left. It was a typical case, and the irregular movements almost incessant. After the chorea the second time had lasted about five weeks, the faculty of speech was lost. There was not sufficient disturbance in the muscles of the face or in the tongue to ascribe the loss to impaired articulation; neither was aphonia present; it was a plain case of complete aphasia. On the right side, tests proved the existence of anæsthesia.

In most cases of this nature there is a rheumatic history, and whenever aphasia is a prominent symptom the chorea attacks either the right side alone, or if both sides, mainly the right; and anæsthesia is apt to occur on the side mostly suffering, as was noticed in the case of the girl mentioned. The prognosis of these cases in general is very favorable; though the choreic movements are usually severe, a complete recovery is the rule. During sleep no abnormal muscular action is observed, which fact forms a main point in the differential diagnosis between chorea as a disease *per se*, and choreic symptoms as accompanying an organic cerebral lesion. The only internal remedy that may shorten the disease is arsenious acid, but the dose must be gradually increased and the remedy be pushed to the limits of physiological poisoning, which can easily be determined by the œdema of the eyelids, or the conjunctival inflammation, or the severe epigastric pains. In a child 8 years old two drops of Fowler's solution ought to be the dose to start with, and every second or third day one drop more be given. But rest, regular gymnastic, but mild exercise, the avoidance of all excitement, and the drawing away of the attention of the child from its disease, are of far more importance in the treatment of chorea than internal medication.

Arsenical Paralysis.

In Russia, arsenic can easily be procured by anybody who wishes it for the destruction of rats and mice. Then there are many itinerant quacks that administer arsenic for every possible disease. These may be two of the reasons why poisoning by this drug is so frequent an occurrence in Russia. Dr. Scolozonhoff, who had a rare opportunity to observe cases of this kind, has published the results of his investigations in the *Arch. de Physiol.*, 1884, No. 7, p. 323.

It is generally believed that most arsenic is deposited in the liver; but many post-mortem examinations, as well as experiments on animals, have convinced S. that the arsenic is present in the central nervous system in thirty-six times larger quantity than, for instance, in the muscular tis-

sue, and that brain and spinal cord contain four times more than the liver. Myelitis is a very frequent symptom of chronic arsenical poisoning, and according to S., it is due to a disseminated myelitis caused by the drug—the same spinal lesion that Westphal noticed in some cases of variola.

Electro-muscular contractility generally diminishes with the duration of the disease; especially in the atrophied muscles it becomes finally lost. There is, therefore, nothing characteristic about the electrical reaction, as the same holds good for all spinal affections of organic nature. Only one point may aid in the diagnosis—the reaction to the galvanic current reappears sooner than that to the faradic.

Bichloride of Mercury in Diphtheria.

This drug has been already so highly recommended that it is important for us to collect all the available evidence on the subject. Dr. W. H. Tate says, in the *Peoria Med. Mo.*, January, 1885, that he has had occasion to treat quite a number of cases of *typical* diphtheria lately, and the basis of his treatment was the *bichloride of mercury*, together with the tinct. ferri and pot. chloras.

Several of the cases were malignant in form, all of which yielded admirably to the treatment.

While he does not wish to convey the idea that this remedy is a specific in the above-mentioned disease, yet he does think it is potent as a remedy, and if properly administered cannot be gainsaid.

He prescribed the following:

℞. Hydr. bichlor., 1 grain.
Aqua destillat., 4 ounces. Dissolve.

Sig.—One teaspoonful in a little sweetened water every four hours (or oftener if required).

In addition to above he gave

℞. Chlor. hydrate, 1 drachm.
Tinct. ferri, 40 drops.
Pot. chloras, 2 drachms.
Tinct. digitalis, 2 drachms.
Aquæ, 4 ounces.

Sig.—Teaspoonful every two hours.

Quinia was given in tonic doses three times a day, and the bowels regulated as required.

The above prescription was given to about twenty-five patients, whose ages ranged from five to fifteen years, producing good results; only one of the number died, death occurring from collapse after convalescence.

Masked Malaria.

The fact that medicine is a very inexact science, that diagnosis is very far from perfection, and that the physician must have some undefined and indefinable term with which to satisfy his patients when he is too much puzzled to be able to satisfy himself, was never better illustrated than in the following annotation which the *Med. News*, January 10, 1885, makes from the *Gaz. Med. di Torino:*

"In an interesting paper with the above title, Dr. F. Simon, in the *Rivista Clinica de Bologna*, shows the necessity, especially in children, in obscnre and serious cases, of holding in mind the possibility of such conditions, and insists upon the efficacy of sulphate of quinine in their treatment after all other remedies have failed. He cites three cases in which the symptoms noticeable were, in one, suffocation, followed by persistent dyspnœa; in another, an intermittent fever and torticollis, manifested twice daily and at regular intervals; in a third, a simple intestinal catarrh, followed by a very profuse, mucosanguinolent diarrhœa. In every case the administration of quinine was followed by permanent improvement."

Of course, the improvement under the use of quinine, plainly demonstrated that quinine was indicated and desired by the system; but is it not about time that we try to attach some *rational meaning* to the word *malaria?*

Salvia Officinalis in Catarrhal Rhinitis.

Dr. D. Hayes Agnew thus writes in the *Therapeutic Gazette*, Jan'y 15, 1885: In a case of chronic catarrhal rhinitis, accompanied by profuse purulent discharges mingled with dark scales, and in which the integument covering the nose and the adjoining sides of the face were red and swollen, after exhausting in vain every known remedy, the disease yielded to douches of sage tea. The patient, who was a married lady, had suffered from the disease for over four months. In cases of ordinary nasal catarrh, an affection at present exceedingly common in the northern portions of the country, when uncomplicated by the usual post-nasal hypertrophy of tissue, infusions of Salvia prove very comforting washes.

Glycerinum Aluminis.

In the *Brit. Med. Jour.*, January 24, 1885, Dr. Robert William Parker suggests a new preparation of alum, which he strongly recommends after a prolonged trial. It is made by dissolving one ounce of alum in five ounces of glycerine, by means of a gentle heat. This is about four times as strong as a saturated watery solution. It is indicated in all cases where a powerful local

astringent is required; and has the advantage over tannin of being far less disagreeable, equally astringent, and quite compatible with an administration of iron. In cases of chronic pharyngitis—so common in children—it is very efficacious; diluted with water, it forms a useful gargle, injection, or lotion.

Chloral Hydrate for Chordee.

In the *Med. Age*, February 25, 1885, Dr. Morris C. L. Kitchen says that for two years he has been using chloral hydrate, gr. x., potas. bromid., gr. v–x to aq. dest. ℥j as an injection for chordee, and has *never* known it to fail of affording perfect relief. He usually adds morph. sulph., gr. ij to the ℥j.

He does not think from his observation that chloral hydrate, or this mixture, is indicated in all stages of the disease; but when chordee comes on, he can confidently recommend the use of it, and usually no other injection is needed afterwards.

CORRESPONDENCE.

Iron as a Medicine.

EDS. MED. AND SURG. REPORTER:—

The intention is not to speak of the therapeutic importance of iron in this short article, for this is presumed to be familiar to every practitioner; but we will endeavor to show by chemical and therapeutical comparisons the advantages possessed by one form of iron over another, of the most common preparations in use.

Long before medicine was entitled to rank as a science, iron in some form was given to cure the sick; and from then up to the present time its utility as such has never been questioned by the profession at large, but the subject of its most appropriate form, to derive its full worth without being accompanied or followed by objections equal to or outweighing its virtues, has constantly been agitated.

Some physicians have continued to give, while others have returned to giving simply metallic iron (*Ferrum*) in a state of minute division as being preferable to any of its preparations; but these are very few in point of numbers, for they soon reach the conclusion that iron plays but little or no part in the healing art, and it is discarded entirely from their lists.

The least, and, perhaps, the most, that can be said of iron in an uncombined state is, that while it possesses but few objections, it has less virtues. Many of our most valuable medicinal agents, both mineral and vegetable, seem to depend upon their union with other agents to develop their full therapeutic strength, and this is not more true of any of our medicines than it is of iron.

Acids possess the property of developing the full medicinal force of iron better than any known agents, and to so great an extent is this recognized that it is safe to say nine-tenths of all the iron prescribed is in the acidulous form. Acids, however, differ widely in their chemical construction, in their astringency and assimilability, and hence in their usefulness as therapeutic agents, either when given alone or in combinations. Not to go minutely into the chemistry and therapeutics of acids, it is sufficient for our present purpose to know that the organic acids are not irritating, less astringent, more easy of assimilation, and equally as efficacious in combining with iron, giving them a decided preference over the inorganic acid preparations. The inorganic or mineral acids are all more or less caustic and astringent, and when in combination with iron are not only often injurious to organic structures, such as the teeth and mucous membranes, but are also appropriated with difficulty on account of their astringency.

Some authors claim that the mineral acid preparations of iron act in no other capacity than that of astringents. While this is true in the main, it is not literally so. Every physician can call to mind cases where prompt and beneficial results followed the use of the *sulphate*, *carbonate*, *muriate*, and other inorganic acid preparations of iron, where their astringent properties were not called for; but he can at the same time refer to innumerably more, where no results or injurious results followed their administration. It would seem that the few instances in which the caustic and astringent properties of the mineral acid preparations of iron do not equal or outweigh their good effects are so few, indeed, that they serve only as the exceptions to the rule; and particularly is this the case among that thin, anæmic, chlorotic class of patients who stand most in need of iron. The organic acids, however, are entirely destitute of irritating properties and very slightly astringent, which eminently fit them, so to speak, to draw out the full medicinal strength of iron without the accompanying objections to the inorganic acid preparations. The *acetate*, *citrate*, *malate*, and other organic acid preparations of iron, have proven themselves mild, efficient, and in every way preferable to the stronger acid preparations, unless the sole object be that of a caustic or an astringent. The *malate*, in the form of solution ferrous malate, we will endeavor to show further along as having advantages over all other forms of iron.

The objections to the strong mineral acid salts of iron have been the means of bringing out a number of non-acid preparations, such as reduced iron (iron by hydrogen), dialyzed iron, etc.; but we will venture to say that clinical experience has proven them to be about as worthless as they are harmless. Reduced iron, of course, is simply metallic iron in a minute state of division, while the very mode of preparing dialyzed iron, its non-diffusibility, seems to us a positve guarantee against its ever passing out of the intestinal canal, and therefore never reaching the blood.

The foregoing seems to warrant the following suggestion. To derive the full therapeutic importance of iron it would seem that it must be in combination with an acid; and to be void of caustic and astringent properties, it must be of the organic instead of the inorganic acidulous form.

There are, however, other considerations of equal importance. As is well known, iron combines with other elements and radicals in two proportions, and those *oxides*, *chlorides*, *acetates*, *malates*, and other salts, in which the atom of iron appears to possess inferior affinities, are termed *ferrous*, the higher being *ferric salts;* but the higher the *oxide*, *iodide*, *citrate*, *carbonate*, etc., the more difficult of assimilation becomes the preparation. To so great an extent is this being recognized, both by physicians and chemists, that the former are ceasing to prescribe preparations of the *ferric* if similar ones of the *ferrous salt* are obtainable, while the latter are laboring to make stable preparations containing the *ferrous salt* only. The difficulty is not so much in being able to make preparations containing the *ferrous salt* as it is in retaining them as such, so great is the affinity between the elements that the *ferrous* is soon converted to the higher salt of iron. The saccharated carbonate of iron and solution ferrous malate are the only two stable preparations of the *ferrous salt* largely in use, which in point of assimilability gives them advantages over all other preparations of iron. The former of these two preparations is prevented from further oxidation by the addition of sugar to the freshly made *ferrous carbonate* before being exposed to the air. If, however, it is not properly protected, a portion of the *ferrous* will afterwards be converted to the *ferric salt*, and the assimilability of the preparation thereby lessened. The saccharated carbonate of iron has been in use quite awhile, is widely known, and laid down in chemistry and therapeutics as being the most assimilable form of iron that we have. The latter preparation, solution ferrous malate, is of a more recent origin, and though extensively prescribed wherever known, it has not yet met with that recognition due it, and which it is destined eventually to receive. We have in this preparation the *ferrous salt*, pure and simple, and permanently retained as such by an alcoholic syrup solution being made of the newly prepared *ferrous malate*. It has a great advantage over the saccharated carbonate of iron in being of the organic instead of the inorganic acid form.

Chemical knowledge and therapeutical experience prompts a slight amendment to our former suggestion, which we feel should give to it almost or quite the distinction of a rule: *To derive the full medicinal strength of iron it must be in combination with an acid, but to be void of all objectionable features it must be of the ferrous organic instead of the ferric inorganic acidulous form.*

Solution ferrous malate meets these requirements. We have in this preparation the ferrous salt in combination wiih a fruit acid.

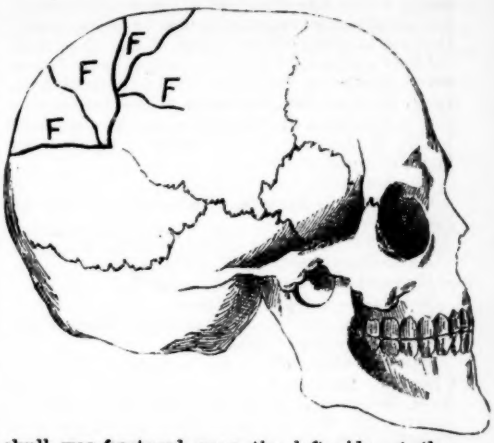
J. Clark Slay, M. D.

101 *West 28th street, N. Y. City.*

Traumatic Aphasia.

Eds. Med. and Surg. Reporter:

In the Reporter of February 21, is noted a case of traumatic aphasia. I will here relate a case that was under my observation until cured. The patient, a soldier, aged 23 years, healthy, received his injury by a railroad accident, being thrown by an engine from the track. His



skull was fractured upon the left side, at the junction of the frontal and parietal sutures, as per diagram in Reporter, as well as I here show on paper. He lost about two to four ounces of brain matter. The fractured bones weighed three ounces, while the hole left in the skull measured 3¼ inches long by 2½ inches in width. After the accident, the fragments of bone and brain matter being removed, and the wound dressed, he was unconscious, and did not come to himself for ten days; being fed by rectum and mouth as occasion would permit. Four weeks after the injury he began to walk about himself, but could say or speak not one word; only by motion of hands and signs could he make his wants known —the faculty of speech was lost. This lasted about eight weeks, and the first words he used were "*Give me a little,*" and here it ended. By this time he was up and about as well as he ever was, wound well, no function but what was going on as in a healthy person, except speech. After ten weeks he began to pick up one word after another, and he used to come to my quarters, I being then at Dennison U. S. General Hospital, in May, 1865 (here is where the accident occurred on the railroad). He told me after he could again talk that he always, that is after he came to himself, knew what he wanted to say but could not say it; as he himself put it, he could have fought for a word. He could talk very well when I last saw him, the hole in his head was covered by the scalp and depressed about three inches below the bones of the skull, as all of three or four ounces of brain were lost. In fact, as he said, he was like a child, and had to again learn one word after another.

C. H. Schmidt, M. D.

Kenton, O., February 24, 1885.

News and Miscellany.

Woman's Medical College.

The thirty-third annual commencement of the Woman's Medical College of Pennsylvania drew a a large and fashionable audience to the Academy of Music, March 11, 1885. The corporators, faculty, and students of the College sat on the

stage, which was bright with flowers and plants. The programme comprised music by the Germania Orchestra, under the direction of Mr. Charles M. Schmitz; prayer, by Rev. George Dana Boardman; conferring the degrees upon the graduates, by T. Morris Perot, President of the Corporators of the College, and an address to the graduates by W. W. Keen, M. D., Professor of the Practice and Principles of Surgery.

The graduates were as follows:

Connecticut—Lucy M. Creemer, Elizabeth M. Peck.

District of Columbia—Ida J. Heiberger.

Massachusetts—Mary V. O'Callaghan.

Missouri—Frances Coleman Smith.

Nebraska—Saleni Armstrong.

New York—Juliet E. Hanchett, Mary Edith Hennessy, Jenny G. Wagner.

Pennsylvania—Ellen G. Brensinger, Mary H. Cheyney, Harriet A. Kane, Galista V. Luther, Kate McDowell, Anna M. Reynolds, Clara C. Shetler, Ida M. Shimer, Elizabeth Snyder, Ella Prentiss Upham, Ella S. Webb, Emma H. Williams.

Rhode Island—Sarah M. Wilbur.

PROF. KEEN'S ADDRESS ON VIVISECTION.

In his address to the graduates, Prof. Keen devoted considerable time to the discussion of vivisection and its practical benefits, saying:

"To stand still we must accept our present knowledge as a finality, complacently pursuing the well-worn paths, neither hoping nor trying for anything better—happily, again, an impossibility. To grow better, we must try new methods, give new drugs, do new operations, or do old ones in new ways—that is to say, we must try new experiments. To these experiments there must be a beginning; they must be tried first on some living body, for it is often forgotten that the dead body can only teach manual dexterity. They must thus be tried—if not upon an animal—upon you. Which shall it be? In many cases, of course, which involve little or no risk to life or health, it is perfectly legitimate to test supposed experiments on man first, although one of the gravest and most frequent charges made against us doctors is that we are experimenting upon our patients. But in many cases they involve great risk to life or health. Hence, they cannot—nay, they must not—be tested first upon man.

"Must we then absolutely forego them, no matter how much of promise for life and health and happiness they possess? The only alternative we have is to try them upon the lower animals, and we would be most unwise, nay, more, we would be cruel—both to man and animal—if we refused to pain or even slay a few animals that thousands of both men and animals might live. Who would think it just to put a few drops of hydrochlorate of cocaine (a year ago an unknown drug) into the eye of a man, not knowing what frightful inflammation or even loss of sight might follow? Had he dared to do it, and had the result been disastrous, would not the law hold him guilty and punish him severely, and all of us say, Amen? But so did Christison with his Calabar bean, and well-nigh lost his life; so did Toynbee with prussic acid on himself, and was found dead in his laboratory."

Further discussing the question, Dr. Keen said: "In passing, I may say that the assertion that America has contributed but little, so far from being an argument for the restriction of vivisection, is a strong argument for its further cultivation, in order that greater good may result from remarkable discoveries here, equal to those that have been made in Europe."

The speaker then related some of the many advantages vivisection has gained during the past thirty years. These were extremely interesting. Referring to this country, he said: "Before Dr. H. C. Wood's accurate experiments on the effect of heat on animals, the nature and effects of sunstroke were almost matters of mere conjecture. Every one had his own theory, and the treatment was equally varied. Even the heat effects of fever itself—the commonest of all symptoms of disease—were ill-understood. Wood exposed animals to temperatures of from 120° to 130°, and studied the effects. These experiments have often been alluded to as 'baking animals alive.' You will observe that the heat is not greater than that to which our laborers are exposed sometimes in our hot summer days. His experiments showed that the effect of sunstroke—or, as he happily termed it, thermic or heat fever, a scientific name now widely adopted—was solely due to the heat, death following from coagulation of the muscular structure of the heart or by its effects on the brain. They explained many phenomena of ordinary fever as the result of heat alone."

Further he said: "In India alone 20,000 human beings die annually of snake-bite, and as yet no antidote has been discovered. How can we search intelligently for an antidote until we know accurately the effects of the poison? This cannot be studied on man. We must resort to animals, or else let the holocaust go on. Accordingly, Dr. P. Lauder Brunton began such a series of experiments in London, but was stopped by the stringent anti-vivisection laws there in force. But Drs. S. Weir Mitchell and Reichert, in this city, have recently undertaken experiments on cobra and rattlesnake venom, the cobra poison being furnished, be it observed, by the British Government, whose own laws prevented investigation for the benefit of its own subjects. The results are as yet only partly made known, but they have been brilliantly successful in showing that there are two poisons in such venom, which have been separated and each studied as to its effects. The first step has thus been taken. The poison is known. Who will raise a finger against the next step—the antidote?"

In speaking of the remedies suggested for other diseases by experiments upon the lower animals, Dr. Keen made mention of cholera. "At present," he said, "our strenuous efforts are all in one direction, viz.: to study the cholera microbes by the microscope, by chemical observation, and by experiments on animals, in order to find out their original causes, growth, and effects, and to discover by what means their deadly results may be avoided, or by what remedies, without harm to the patient, they may themselves be destroyed. Evidently, these studies cannot be tried on man; they must either be tried on animals or be abandoned."

In conclusion, he said: "I have given you

only ascertained facts for your future use in the communities in which you may settle. They may assist you in forming public sentiment on a basis of fact, of reason, and of common sense. The sentiments of our profession, so constantly and so conspicuously humane, are always against giving pain, but if in yielding to sentiment we actually increase disease and pain and death, both among animals and men, our aversion to prevent pain is both unwise and actually cruel."

Marriage and Cholera.

The following interesting communication from the famous scientist, Richard A. Proctor, published in the *Philadelphia Press*, March 15, 1885, is worthy of reproduction:

"There are few methods of research more apt to lead men astray than those depending on statistics, yet there are few on which men place more unquestioning reliance. They often justify Disraeli's scarcely grammatical saying, that 'Few things are more deceptive than facts, unless it be figures.' In an anonymous essay which appeared in the London *Daily News* in 1869, and was quoted from soon after with approval by Darwin, in his 'Descent of Man,' I pointed to the error into which those statisticians have fallen who reason that because the death-rate for the married is lower than the death-rate of bachelors and spinsters, therefore marriage is prophylactic. Mr. Herbert Spencer has insisted strongly on the same objections which I then urged. Dr. Hark, and since his time Dr. Drysdale, M. Bertholet and others, have with great care examined death-rates for the married and the unmarried. They have carefully considered how the statistics vary for different periods of life, and for the two sexes. And they have proved satisfactorily that the death-rate among the married is decidedly lower than among the unmarried. Drysdale and Bertholet have gone farther, proving by statistics that consumption, lunacy, idiocy, dishonesty, drunkenness, and other evils, or evil qualities, are less common among the married than among the unmarried. Because they have proved this, they imagine that they have proved marriage to be a preventitive, if not a cure, for many fell diseases, as well as for madness and for crime. And now comes the latest piece of evidence in favor of the hymeneal cure for disease. It appears that cholera affects the married less than the unmarried. Between the ages of 25 and 30 the mortality of married men from cholera during the recent epidemic in France was 10 per 100,000, while the mortality of unmarried men from the same disease was 51 per 100,000. Between the ages of 30 and 35, the numbers were respectively 21 and 70. The discrepancy was found to increase with the age, and between the ages of 50 and 55, while the number of deaths per 100,000 was only twice as great as between 25 and 30, for the unmarried the number for the married was more than three times as great, the actual membership being respectively 37 and 167.

WHAT THEY SAY IN EFFECT.

It seems to many as though such facts as these were of themselves demonstrative of the preservative influence of marriage. As a matter of fact the theory is not demonstrated, scarcely even supported, by the evidence adduced. Stark, Drysdale, and the rest, say to all men and women, in fact: "If you are of a delicate constitution, so that your hold on life is weak, marry, that your chance of long life may be increased; if your sons and daughters are weakly, let them marry early; if you recognize in your nature evil tendencies, marry; if your children are of evil nature, urge them to marry; if there is a strain of madness in your blood, marry; if your offspring manifest mental defects—melancholy, weakness of mind, incipient traces of unsound mind, see to it that they marry as early as posible." Now, grant that the end desired may be secured in this way, and let us see what must come of it. The weakly are saved, let us suppose, for a span of time beyond the age which, if unmarried, they would have reached; those of weak or unsound mind are saved from such marked manifestations of their mental defects as otherwise they would have displayed; those of evil tendencies display their evil nature less publicly than they would have done if unmarried. So much is gained. But who for a moment can set this trifling gain against the evil probably wrought in every case, and certainly wrought in most cases? For tens of weakly, weak-minded, and evil-natured beings partially saved, scores of such beings are brought into existence; nay, in many cases, the offspring of the marriages suggested by the selfish theory we are considering must be inferior even to their parents, because, in many cases, inferior types of men would be mated to inferior types of women, were the advice so earnestly given by Drs. Stark and Drysdale systematically followed. If, then, it shall appear that the theory on which this advice is based is altogether unsound, there are more reasons than one for dwelling on its defects. As an unsound theory it should be rejected; as a dangerous doctrine it should be denounced.

"Now, what are the observed facts? Among the married fewer die young, fewer offend against the criminal laws, fewer become insane or idiotic or intemperate, fewer commit suicide, fewer succumb to consumption, cholera, and other diseases, than among the unmarried. What can be clearer? say Stark and his followers.

"What would be thought of an agriculturist who, being anxious to compare the value of two methods of planting potatoes by testing results, should take for one method all the potatoes stored in some ill-protected cellar, where they were exposed to many chances of being ruined, and for the other only potatoes kept carefully according to the best methods known for storing such roots? He would probably find the latter method giving much better results than the former; but he would be none the wiser, for the superiority of the results might be wholly due, and would certainly be partially due, to his selection of the best preserved roots for that method and of ill-preserved roots for the other.

"Now, to any one who considers superficially the marriages taking place all the time, it may seem as though there were no special selection of the stronger lives, the wiser minds, the better morals. We see weakly folk finding mates; male and female cranks marry; and folks of evil disposition have no difficulty in joining the ranks of

the wedded. But in reality, such persons may be said to marry in spite of their defects, physical, moral or mental; and immense numbers of those afflicted by such defects fortunately fail to marry, or wisely avoid marriage.

"THE LOGICAL CONCLUSION.

"A man of sense who is of feeble constitution, knows that he should not marry, because, in the first place, he is ill-fitted for the more earnest struggle which, on the average, the married have to make to maintain their position, and, in the second place, his children would probably inherit his defects. A man who inherits, or knows that he may inherit, cerebral defects, need not necessarily be so wanting in moral sense as to be willing to risk entailing like defects on his children and grandchildren, perhaps to untold generations. Men of evil nature may not, perhaps, be deterred from marriage by thought for others. But such men, and those of poor physical nature, and those of defective mental powers, are all, fortunately for themselves and for the world, pretty heavily handicapped in the matrimonial race by their various defects. The same is true of women. In some cases, which must appreciably affect the average, parents interfere where the young folks unwisely overlook defects which cannot but impair the happiness of the wedded state, and must inevitably lead to much inherited misery. For these, and many other reasons which might be cited, marriage may be regarded as a selective process, by which (on the whole) the weaker and worse in body, mind and morals remain in one class—that of the unmarried—while the stronger and better enter the ranks of the married.

"There is not much fear, perhaps, that because the married have been found to succumb less readily to cholera than the unmarried, all the weaklings will rush into the bonds of matrimony when an epidemic of cholera is threatened or in progress. But it is well to insist, in season and out of season, on the folly of the idea that men and women can guard themselves by marriage against disease and death, and on the wickedness of adopting that resource could it be proved to be a sure one. Natural selection is the means by which nature leads to the development and improvement of races. In fine, the more thoroughly the thought of marriage is separated from all selfish ideas, whether relating to bodily, to mental, or to moral health, the better will it be alike for human happiness and the progress of the human race."

Provisions for our Insane.

There was a large attendance at the conference held by the Prison Committee of Councils, Committee on Lunacy of the State Board of Charities, and the Consulting Staff of the Blockley Insane Asylum, on March 10.

Drs. S. Weir Mitchell, H. C. Wood, and C. K. Mills, the consulting staff of Blockley Insane Hospital, submitted an answer to the letter addressed them by the Councils sub-committee. The opinion was expressed that the insane should not be permanently provided for on the almshouse grounds, and that provision should be made for them in close proximity to the city, and in such position that at least 200 acres of ground can be secured. On the important question of cost the committee suggests that Councils and the Board of Guardians petition the legislature to erect a State hospital *for the insane of the city of Philadelphia.*

"We recommend very earnestly," the doctors said further, "that measures should be immediately taken for the vacation of the attics of the almshouse and for the destruction of the pavilions. We believe that every one acquainted with the subject thinks these changes imperative, and that they should take place before the possible visitation of cholera. The tearing down of the burned buildings would open the quadrangle to the south, so that the prevailing winds would be freely admitted in summer, while the clearing out of the low central buildings, now used for almshouse purposes, would afford opportunity for exercise grounds, sheltered from the cold north and west winds of winter and spring. At a comparatively small expense the present buildings could be made extremely serviceable for hospitals, and the city at last have an institution worthy of its good name. There is one alteration which has been commenced in the present out-wards and should be completed immediately. This is the tearing-out of the so-called 'cubby-holes,' atrocious, airless, dark, noisome, life-destroying, germ-harboring cells, the very conception of which was monstrous. To complete their destruction would cost a mere trifle. We earnestly advise that no other changes should be made in the buildings until a well-digested plan is prepared; otherwise, there will probably be a great waste of money by alternate tearing down and building up, with patchwork result in the end. A wise economy requires that a few hundred dollars be spent in obtaining an opinion from the best expert to be found as to the proper plan of altering these buildings into a modern hospital. We would venture to suggest Dr. J. S. Billings, of Washington, as above all others fitted to give advice on this subject. He is certainly the highest authority upon hospital construction in the United States, if not in the world."

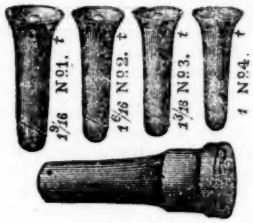
Cooper Hospital (Camden, N. J.).

The Managers of the Cooper Hospital, a large and handsome stone structure near the City Hall, Camden, have at last decided to open that institution about the 1st of June for the reception of patients. The building was erected about nine years ago at a cost of nearly $100,000. It was built and endowed by the Cooper family, who with the Kaighns were the original settlers of Camden long before the Revolutionary War, and who own large tracts of land and valuable property in that city. The hospital has never yet been opened, because the income from the endowment fund was not deemed sufficient to run the institution. The fund has been accumulating, and now amounts to over $200,000, the income from which is about 10,000. The Board of Managers, which is composed of representatives of the estate and prominent citizens of Camden, at their recent meeting decided that this was sufficient to warrant the opening of the hospital, and the necessary physicians, nurses, and employees are being secured. There will be fifteen beds in use at first, and the number will be increased as the

income grows larger. The management will be regular, as this is provided for in the bequest, but there is no restriction as to admissions on account of race, color, or religion.

Staufer's Gynecological Instruments.

The hard rubber gynecological instruments manufactured by S. S. Staufer have been before the profession a number of years, and without any "pushing" have steadily grown in favor by their own merits. It gives us pleasure to call the attention of our readers to them, and to recommend them from our own experience. In various obstinate cases we have found them the most satisfactory of any we have tried, and letters from physicians in various parts of the country make the same report. There are two such before us now, one from Kansas, another from Albany, N. Y., speaking in warm terms of the excellent results obtained, and the neatness and convenience of the various appliances. We insert a cut (No. 1) of Staufer's Uterine Examining Case, and two cuts (Nos. 2 and 3) of his plan of support. Full catalogues and descriptions can be obtained by addressing him, P. O. Lock Box 936, Philadelphia.



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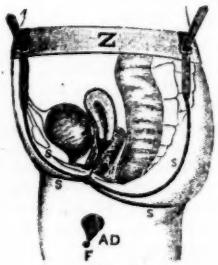

No. 2.

No. 3.

Therapeutic Improvements.

Horsford's Acid Phosphate.

We have in a number of instances made use of this preparation when desirous of invigorating the nervous system, and combating the effects of hard work, anxiety, debility from age or disease, exhaustion from heat, and similar conditions pointing to a depleted nervous supply. In the majority of cases the effects have been highly satisfactory, and the patients themselves recognized the prompt and pleasant action of the medicine. It is an excellent preparation of active phosphate, and enjoys a well-deserved popularity.

Anderson's Vaginal Capsules.

These capsules are of carbolized gelatin, filled with antiseptic absorbent cotton. They are easily introduced and a thread is attached for their removal. The medicating substance is dissolved and the cotton is steeped in the fluid. The active agent is thus applied to the os for a long period of time, and much more conveniently than by the use of a speculum. They appear to be a highly desirable addition to the gynecological armamentarium.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the week ended February 28, 1885.

Purviance, George, surgeon. Granted leave of absence for one week, February 24, 1885.

Kalloch, P. C., assistant surgeon. When relieved, to proceed to Pittsburgh, Pa., and assume charge, February 27, 1885.

White, J. H., assistant surgeon. To proceed to Savannah, Ga., and assume charge, February 24, 1885.

College of Physicians and Surgeons of Baltimore.

At the annual commencement of the College of Physicians and Surgeons of Baltimore, held March 13, one hundred and fifty-four graduates received their diplomas. The prize graduates were: John W. Coughlin, Massachusetts; Frank C. Breeder, Pennsylvania; James C. Hurst, Virginia; Wm. S. Gardner, Ohio; Amos L. Gage, Maryland; A. D. Marks, Indiana; Moore S. Falls, District of Columbia; Thomas B. Perry, Georgia; Walter T. McCoy, Indiana; John R. Flanigan, New York; and A. L. Hutto, South Carolina.

Prof. Harrison Allen Resigns.

At a meeting of the trustees of the University of Pennsylvania, March 3, the resignation of Dr. Harrison Allen, who has been professor of physiology at the University for some years, was received and accepted. Prof. Allen stated that his increasing practice rendered it impossible for him to longer occupy the chair.

Items.

—Dr. A. to Dr. B., discussing current magazine literature: "Now, I take *Life* every week." Dr. B., grimly: "I suspected as much."

—A druggist's apprentice was killed a few weeks ago, at Kingsbridge, England, by the explosion of a mixture of potassium chlorate and sulphur while making "red fire."

—Dr. William L. Zuill, who is a graduate from the medical department, has been elected professor of surgical pathology in the veterinary department of the University of Pennsylvania.

—In the *New York Med. Jour.*, February 14, 1885, Dr. W. T. Bull reports a case of gun-shot wound of the intestines treated successfully by laparotomy with suture of the intestines.

—Mrs. Marshall Hall, the widow of the great physiologist, died on the 14th of January, at the house of her nephew, Dr. Marshall Hall Higginbottom, Nottingham, England, aged 83.

—In the *Boston Med. and Surg. Jour.*, February 5, 1885, Dr. E. S. Wood reports a case of chronic diffuse nephritis and amyloid degeneration of the kidneys, complicated, toward the close of life, with glycosuria and inosituria.

—Dr. Detmold, of New York, regards as a pathognomonic sign of syphilis, a permanent edema over the anterior surface of the tibia, in cases of periostitis of that bone. In no other case, in all his experience, has he ever seen it entirely disappear, and hence its great diagnostic value.

—The death is announced of Professor Friedrich von Stein, who held the chair of Zoölogy at Prague for more than thirty years. His chief work, published in 1854, was on the Development of the Infusoria. Prof. von Stein was a distinguished pupil of Johannes Müller.

—Acne is often reflex from urethral irritation. Dr. S. Sherwell obtained marvelous improvement in the faces of two patients, after long treatment had failed, by passing cold sounds every third day. The urethra was found sensitive, especially at about the junction of the membranous portion with the prostatic.—*Jour. C. and V. Dis.*

—M. Toulouze describes in the *Union Médicale* some old surgical instruments recently found during some excavations on the site of an old Roman road in the Rue Clovis in Paris. He believes that they date back to the period of Galen. They consist of an epilation forceps, a probe, and an ear-scoop—at least these are the uses for which M. Toulouze regards them as applicable.

—Lawson Tait, in the *Brit. Med. Jour.*, gives his method for the radical cure of umbilical hernia by abdominal section, and considers it applicable to other forms of hernia. He opens the sac, frees all adhesions, cuts off omentum that may be in the way, pares the edges of the ring, and stitches up the wound with a continuous silk thread, which he leaves permanently. The results have been most satisfactory.—*Can. Lancet.*

—Dr. Graham remarks: "That, let a fisherman forsake his boat, or a blacksmith his anvil, or a carpenter his bench, or a shoemaker his shop, and proclaim that he has made the wonderful discovery that he is full of magnetism and can cure all diseases, and, be he ever so uncouth and ignorant, he is likely to have, in a remarkably short space of time, a clientele of educated gentlemen and ladies."

OBITUARY NOTICES.

DR. NATHANIEL FORD.

Dr. Nathaniel Ford, an old doctor in Brooklyn, died recently at his home, No. 514 Henry street, at the age of seventy-one. He was attacked with pneumonia, but persisted in attending his patients when really too ill to go out. He was a graduate of Dartmouth College, and a physician in Brooklyn for thirty-five years, having a large practice. He left a widow and three sons.

MRS. SUSAN RIDGWAY BARTON.

Mrs. Susan Ridgway Barton, widow of Dr. J. Rhea Barton, of this city, died March 4, in the 88th year of her age. She was a daughter of John Jacob Ridgway, in honor of whom and a sister the Ridgway Library was named. For many years Mrs. Barton resided at Juniper and Chestnut streets, the site now occupied by the Keystone National Bank. Subsequently she erected a handsome residence at Broad and South streets, which did much to improve that neighborhood. Mrs. Barton was highly esteemed for her charitable disposition. Two children survive her, Francis Barton and Mrs. Williams.

DR. SIMEON A. FOSTER.

Dr. Simeon A. Foster, who died at Jacksonville, Florida, on Sunday, March 8, was born at Hillsdale, N. Y., in 1843, coming from an old and well-known family. He was graduated from the Medical Department of the University of the City of New York in 1867, and began practicing in South Egremont, Mass., where he remained for three years. On returning to New York city he became identified with the New York Orthopœdic Dispensary and Hospital, where he remained until last December, when his resignation of the position of senior assistant surgeon was accepted by the trustees. For a year before his death he was an invalid from consumption. He stood high in his specialty, and devised an efficient apparatus for the treatment of diseases of the knee-joint. He was a widower, but leaves two children.

JOSEPH KLAPP, M. D.

Joseph Klapp, M. D., a well-known physician, died of pneumonia recently, at his residence, 622 Spruce street, this city, in the 60th year of his age. The deceased came from a family of eminent physicians, and had been a practitioner for forty years. He was the medical adviser of many of the Catholic clergy of this city, a member of the County Medical Society, and one of the founders of the Howard Hospital. He leaves a widow, three sons, and five daughters.

JAMES D. W. TEMPLE, M. D.

Dr. James D. W. Temple died at his residence, in the town of Kenton, Delaware, March 6, 1885, of congestion of the brain. He was thirty-five years of age, and was a very genial, social gentleman. He was a member of the Legislature of his State two years. He graduated at Jefferson Medcal College in 1874, and was very prominent and successful in the profession of his choice. He leaves a wife and family and a large circle of friends to mourn his loss.

MARRIAGES.

LONGSDORF—ERNST.—February 18, 1885, in Jacksonville, Pa., by Rev. G. M. Reed, assisted by Rev. J. F. Diener, Harold H. Longsdorf, M. D., of Dickinson, Pa., and A. Ella Ernst, of Jacksonville.

NEAL—LEISENRING.—March 5, 1885, at the Presbyterian Church, Upper Lehigh, Pa., by Rev. J. W. Bischoff, Henry M. Neal, M. D., and Miss Ada L. Leisenring, both of Upper Lehigh, Pa.

SPEAKMAN—CONNOLY.—February 16, 1885, at Pau, France, by the Rev. George Brown, Howard D. Speakman, M. D., of Woodbury, N. J., and Helen, daughter of James Connoly, formerly of New Orleans, La.

WATKINS—BERRY.—December 26, 1884, at Stillwater, Minn., by Rev. R. J. Creswell, of 1727 3½ Avenue, (So.) Minneapolis, Minn., Olin S. Watkins, M. D., of N. P. Junction, Minn., and Miss Olive Berry, of Stillwater, Minn.

WILLIAMS—ALFORD.—February 19, 1885, by the Rev. H. L. Duhring, at All Saints' Parsonage, No. 740 South Twelfth Street, Mr. Charles N. Williams, M. D., and Miss Emma J. Alford, both of this city.